

The United States MILLER

Published by F. HARRISON CAWKER. { Vol. 15, No. 3.}

MILWAUKEE, JULY, 1883.

Terms: \$1.00 a Year in Advance.
Single Copies, 10 Cents.

ODELL'S "8-ROLL" ROLLER MILL.

A very large proportion of the flour mills in this country are small ones, having a capacity of from 25 to 75 barrels per day of 24 hours. Many of them are owned and operated by intelligent and enterprising men who desire to keep up with the march of improvement, but a large and expensive mill is neither adapted to their means nor the requirements of their trade, and if they adopt the gradual reduction roller system at all (and they must adopt it or lose their trade) it must be in some simple and cheap form and yet be capable of producing good results. Thousands of such millers are anxiously inquiring for such a system, and we are now prepared to respond to their requirements with a line of rolls and system of milling which, in respect of quality of flour, yield, power required, and cost, will meet all reasonable expectations.

We herewith illustrate a new Roller Mill, designed by U. H. Odell, expressly for mills of small capacity, and which is called the "8-Roll" Machine, to distinguish it from Odell's Standard Machine. In describing this machine the manufacturers say: "It contains four pairs of 7 inch by 14 inch rolls, all of which are driven with one belt from the power shaft, each pair provided with an independent hopper and feed mechanism, all combined in one neat and substantial iron frame. Each pair of rolls is provided with suitable adjustments for setting and trammimg them, and all four pairs may be simultaneously spread apart and the feed cut off by one movement of a hand lever—a feature of great practical value broadly covered by Odell's patents, and used only on his roller mills.

By means of one adjustable tightener pulley the machine can be instantly stopped or started without disturbing the driving belt, another feature of great practical value and importance, and which is peculiar to Odell's Machines.

All of the rolls are of the celebrated "Ansonia" make, and are the same in all respects, except in size, as those used in the Standard Machines. Either pair, or all of these rolls may be corrugated or smooth, as desired. One of these machines (8 rolls) will make the "breaks" and finish the bran for a capacity of 40 to 50 barrels per 24 hours, using millstones for reducing the middlings, and two of these machines (16 rolls) will, without the aid of millstones, do all the work for a mill of that capacity and finish up in good shape.

The view shown in the engraving is the driving side of the machine, and shows how the fast-speeded rolls are driven from the power shaft. On the reverse side, the slow-speeded rolls are driven with belts of sufficient length to insure good results, and provided with suitable tighteners, running from pulleys on the ends of the fast-roll shafts, which project far enough for that purpose.

DIMENSIONS OF ODELL'S "8-ROLL" MILL.

Extreme Length	Extreme Width	Height from Floor to over All.	Top of Hopper.
4 ft. 6 in.	4 ft. 2 in.	5 ft. 5 in.	

In the chase after something "cheap" for small mills, some machines have been brought out which are cheap in first cost, but will prove dear enough in the long run to the miller adopting them, owing to their cheap, faulty mechanism, and disregard of principles which are essential in the successful reduction of wheat. In striking contrast to all such cheap and comparatively worthless machines, Odell's "8-Roll" Mill possesses all the requisites for first-class work. Each reduction is made with a pair of rolls, *adapted to it, and entirely separate and distinct in its bearings, drive, and adjustments* from the rolls on which the other reductions are made, and will do just as good work up to its capacity, and does it in the same manner, as on his full-sized double-roller mill, now everywhere regarded as the standard machine of its class. The

quality of material and workmanship is up to the high standard for which all of our products are noted, and this "8-Roll" machine is in all respects a first-class roller mill of small capacity, and is just what thousands of millers have been waiting for.

Prices and further particulars furnished on application to the sole manufacturers, STILWELL & BIERCE MFG CO., Dayton, Ohio.

DRIVEN-WELL PATENTS.

The Federal Court of Des Moines, Iowa, on May 19th, rendered an opinion on the question of the validity of Nelson W. Green's driven-well patent, a case that has been pending for some time. The court holds that there are two well-established instances of prior use of the principle involved in this patent, one of them being at Independence, Iowa, where a well was sunk in the early summer of 1861, and the other at Milwaukee, where a large

nesota, and Judge Love, of the United States Circuit Court for the Northern District of Iowa, sat with Judge Shiras. Judge Love concurred in Judge Shiras's decision and Judge Nelson dissented. The appeal will not bring these cases before the Supreme Court of the United States for the first time. When the hearing in Iowa began, an appeal taken by the farmers from a decision made by Judge Gresham, of Indiana (now Postmaster-General,) was pending in Washington, the case being that of *Whal against Hine*. Only eight of the Supreme Court justices sat at the hearing of that appeal. The court was equally divided, four justices being on one side and four on the other, so that the Supreme Court must try again. An appeal from the New Jersey District will probably be reached before the appeal which will go up from Iowa. In the mean time, the patentee's application for an injunction prohibiting the Indiana

be stored somewhere for shipment to Chicago, and Winnipeg is the natural point. An elevator of the capacity of a million bushels could be erected for, at the outside, \$200,000. Wheat is generally higher at Chicago during the winter than during the summer months, and in that season Winnipeg could do a good trade. If wheat were worth a dollar per bushel, the storage of a million bushels here would represent a million dollars. It is not money locked up. When a grain-buyer buys the farmer's load and puts it in the elevator, the banks are quite willing to advance him 75 per cent. of its value on the warehouse receipt, and with this he is enabled to keep on purchasing. His purchases, in fact, become the security for further advances and other purchases. In this way an enormous sum of money is kept in circulation, the good effects of which are felt in every branch of trade. When the grain-buyer sells, say to Chicago, he draws for the full amount on the strength of the bill of lading, the draft being credited in the bank against the amount advanced him on the warehouse receipt. Then he goes to work again. Storage costs a cent per bushel per month, or, including insurance, a cent and an eighth. This soon pays for the elevator. No. 1 hard, the Fife wheat grown in the Northwest, is worth five cents per bushel more than No. 2 Chicago.

In a few years every station along the C. P. R. will have either a warehouse or an elevator, and Winnipeg should lose no time in making itself the great reservoir of so much wealth.

The *Free Press* of the same date also contains a well-reasoned article on the same subject, which appeals strongly to the financial and commercial classes generally. On the question of profit from such an investment the article concludes with the following paragraph: From the capitalist's standpoint the investment of money in such an enterprise as this seems to promise exceedingly well. His object is, of course, to secure a fair return for his capital invested, and no other scheme affords a better prospect now than the building of elevators. If the profits from storage are not likely to yield a handsome dividend, then there can be no money whatever in the Northwest grain trade, and consequently not a good prospect for the Northwest itself. The enterprise, in short, is just as sure of success as the country itself, and this cannot be said of every enterprise in which capital is embarked. Since the community and the capitalists who build the elevators are sure to profit by their establishment, there should be no hesitation in at once commencing their construction.

It may be added that in Chicago, Milwaukee, St. Louis and all other grain centres of the Western United States, storage elevators have proved remunerative investments, and some railway companies who own and operate their own find them a great source of profit, while others can rent them to reliable parties to operate, and secure in rental a heavy return on the money invested.—*The Commercial* (Winnipeg).

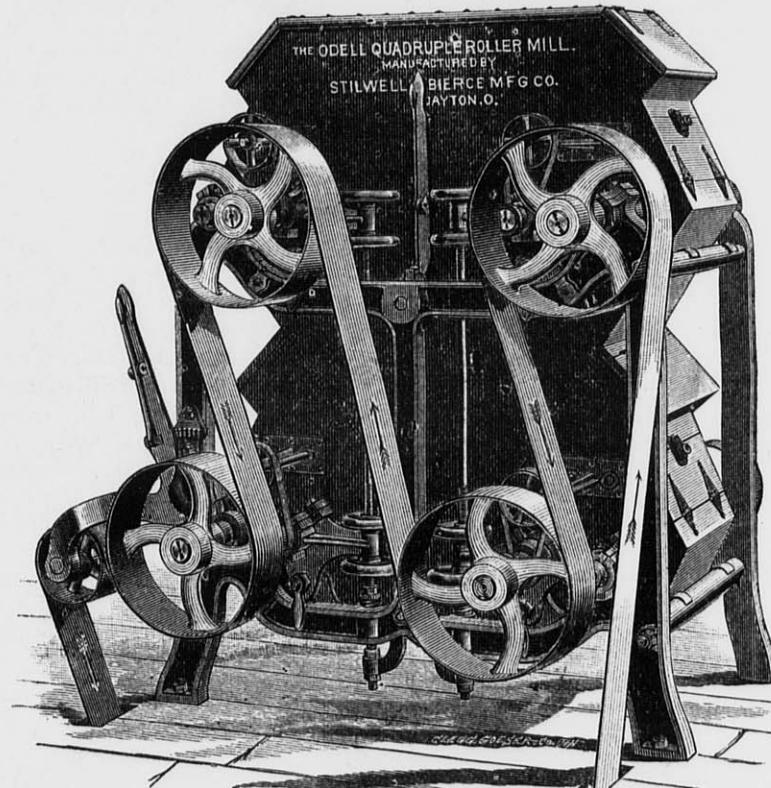
WINNIPEG GRAIN STORAGE.

The question of a system of grain elevators in Winnipeg for the storage of North-western grain, which has been on several occasions during the past six months advocated by *The Commercial*, seems at last to have forced its importance upon the daily press of this city. *The Times* of last Tuesday contains the following article on the subject: If Winnipeg is ever to be made a great city, elevators must be built. At present wheat is sold here in the market or at the mill in the primitive fashion. Two years hence the yield of wheat in the North-west will have reached formidable proportions. During the season of navigation it will find its way to the seaboard via Port Arthur, but for at least six months in the year there can be no outlet there. It must then

THE Minneapolis people feel very jubilant over the condition of their flour and grain trade, and recently sent out the following dispatch:

MINNEAPOLIS, June 7.—Milwaukee received during the year 1882, from Jan. 1 to Dec. 31, 7,816,471 bushels of wheat. Minneapolis for the same period received 18,927,500 bushels, the excess in favor of Minneapolis being 11,111,027 bushels. Every one in any way connected with the Minneapolis wheat trade has been complaining of small wheat receipts since the 1st of January. By looking up the figures, however, it is found, that up to May 31, the receipts for five months were 6,155,418 bushels, only a little more than 1,000,000 bushels less than Milwaukee gets in the whole year.

The Minneapolis Chamber of Commerce has recently elected Kenzie Maxfield, the present inspector for the Millers' Association, chief grain inspector of Minneapolis.



ODELL'S "8-ROLL" MILL.

UNITED STATES MILLER.

PUBLISHED MONTHLY.

OFFICE Nos. 116 & 118 GRAND AVENUE, MILWAUKEE, WIS.
Subscription Price.....\$1 per year in advance.
Foreign Subscription.....\$1.50 per year in advance.

MILWAUKEE, JULY, 1883.

ANNOUNCEMENT:

Wm. Dunham, Editor of "The Miller," 69 Mark Lane, and Henry F. Gillig & Co., 449 Strand, London, England are authorized to receive subscriptions for the UNITED STATES MILLER.

We send out monthly a large number of sample copies of the UNITED STATES MILLER to millers who are not subscribers. We wish them to consider the receipt of a sample copy as a cordial invitation to them to become regular subscribers. Send us One Dollar in money or stamps, and we will send THE UNITED STATES MILLER to you for one year.

The United States Consuls in various parts of the world who receive this paper, will please oblige the publishers and manufacturers advertising therein, by placing it in their offices where it can be seen by those parties seeking such information as it may contain. We shall be highly gratified to receive communications for publication from Consuls or Consular Agents everywhere, and we believe that such letters will be read with interest, and will be highly appreciated.

ATTENTION FLOUR MILL OWNERS.

We desire all flour-mill owners to write to us, giving us their correct address, with post-office, county and state. Please state also capacity of mill in barrels per day of 24 hours, what kind of power is used, and whether stones or rollers or both stones and rollers are used. Your compliance with above request will confer a benefit not only on us and the mill-furnishers and flour dealers, but on yourself. Address as early as convenient,

E. HARRISON CAWKER,

Pub. of Cawker's American Flour Mill Directory,
116 & 118 Grand Ave.,
Milwaukee, Wis.

A SYNDICATE of Jackson, (Mich.) capitalists, with large capital, has bought the Case purifier patents. It is inferred that lively war will be carried on.

LATE dispatches say that the affairs of the "Queen Bee Mill," at Sioux Falls, Dak., will be all adjusted soon, so that the mill can start up as soon as the new crop is harvested.

THE Breaking out of Cholera in Egypt will doubtless cause the closing of the Suez Canal for some months. This will cut off European supplies of Indian and Australian wheat to a great extent.

THE UNITED STATES MILLER lately received calls from Mr. W. Thayer, the inventor of the pneumatic middlings purifier, of Westerville, O.; Geo. T. Smith, of the Smith Purifier Co., of Jackson, Mich.; Mr. Beardslee, inventor of the Beardslee grain cleaner, and Mr. Crowell, of Sillwater, Minn.

WAUKESHA water from the MINERAL ROCK SPRING is becoming a favorite water in Milwaukee. It possesses all the virtues of any Waukesha water, and is fast becoming popular with the thousands annually visiting Milwaukee and Waukesha for health. Large quantities are being exported annually.

THE Supreme Court of the Dominion of Canada, at Toronto, in the suit of the Geo. T. Smith Middlings Purifier Co. against Goldie & McCollough, decided in favor of the Smith Co., establishing the validity of the Smith claim, declaring Geo. T. Smith to be the inventor, sustaining the decision of the commissioner and directing a decree for an injunction, with costs, etc. This is a decision of the court of last resort in Canada, and the Smith Co. are greatly elated therat. The Consolidated Purifier Co., of Toronto, Canada, represent the Smith interests there.

THE number of flour mills that have been destroyed by fire during the past three months is large. Mutual insurance companies have not been so fortunate as in times past. The Wisconsin Millers' Mutual Insurance Co., have met with three losses, amounting in all to \$10,000, and the Millers' National, of Chicago, has suffered to a much greater extent. It appears to be a well established fact that there are more mill-fires when milling business is dull and many mills are shut down, than at any other time. The principal causes assigned as the origin of fires in idle mills is "spontaneous combustion." Fires of such origin occur when the mills are in operation,

but employees are always about and generally extinguish them before much damage is done. A competent and trustworthy watchman should always be on guard in a flouring-mill when it is idle. If the mill-owner does not put one there, the insurance agent should.

DURING the month of May, there arrived in the United States 110,148 passengers—of whom 99,601 were immigrants, 5,467 citizens of the United States returned from abroad, and 5,080 aliens not intending to remain in the United States.

Of this total number of immigrants, there arrived from England and Wales, 18,443; Ireland, 15,160; Scotland, 4,383; Austria, 1,668; Belgium, 373; Bohemia, 1,404; Denmark, 1,743; France, 455; Germany, 29,787; Hungary, 856; Italy, 7,276; Netherlands, 1,068; Norway, 4,898; Russia, 382; Poland, 183; Sweden, 6,801; Switzerland, 2,080; Dominion of Canada, 6,922; and from all other countries, 710.

MINNEAPOLIS millers have had occasion during the past few months to learn that there were too many mills in that city. The lesson has been an expensive one. We think that the present milling capacity of the Minneapolis mills will not be increased for a long time to come, and do not believe that the owners today could begin to realize the actual cost of their mills if they should try to. The milling capacity of Minneapolis alone is sufficient to turn all the wheat raised in Minnesota into flour, and it is well known that there are at least a hundred millers of large capacity in Minnesota outside of Minneapolis. There are, to-day, in Minnesota between 400 and 500 flour mills. Under this condition of affairs, many millers must be idle during a large portion of the year.

WE thankfully acknowledge the receipt of five samples of wheat from Mr. John Dunn, of Adelaide, South Australia, also a copy of their latest trade circular, dated April 27th, from which we make the following extract:

The publication of the Government returns of our agricultural statistics, showing the total production of wheat to be about 20,000 tons less than last year, has no appreciable effect upon prices, but holders of grain continue very firm in their demands, anticipating that the remainder of our available surplus will not suffice to meet the ordinary demands of our regular customers. The area under wheat is shown as 1,746,864 acres, producing 7,356,117 bushels, equal to an average of 4 13-60 bushels per acre, which is the smallest average ever reaped in this colony. After deducting for seed and home consumption, only 100,000 tons remains for export, of which 48,433 tons has already been shipped. No wonder that our agriculturists complain that wheat-growing does not pay, and unless we have a return of more prosperous seasons the same remark will soon be applicable to the milling trade. Our own mills are capable of grinding more than the half of this year's surplus, and those of the Adelaide Milling Company the remainder, consequently great difficulty will be found in obtaining continued work for the numerous smaller mills that are scattered throughout the colony, and it is evident that many of them must remain idle for more than half the year.

A WORD FROM THE CONSOLIDATED M. P. CO.

Editor Milling World:

We are exceedingly disinclined to try our litigated cases in the newspapers, and have avoided, doing so resolutely in the past. It is entirely legitimate for the Case Co. to make what they can, truly, out of their late deliverance in Columbus. But the public should not be misled. The same order of the court dismissing our bill contains an allowance of an appeal to the Supreme Court of the U. S., so that the cause is still pending, and stands just as it did a month ago—a cause pending and awaiting its call in regular order, only it is now in another court.

This suit contained only a small part of one case against that company. We did not care to submit all our case to Judge Baxter, whose peculiarities were not unknown to our attorneys. Other suits on other patents are pending in other circuits, and these will come forward in due time. The public may be assured that all the questions between this and the Case Company will be disposed of in the future, but none of them have yet been settled.

There is no need that any miller should make a mistake. Every practical miller can judge better than this judge can, who knows nothing about milling. His opinion, as declared, was that the Case machine was as great an improvement upon Smith's, as Smith's was upon Stoll's machine, and therefore there was no infringement of Smith's patent. Now if, on inspection of the three machines, a miller concludes that this opinion of the judge is manifestly wrong, it follows that the conclusion deduced is erroneous. No miller need go to a judge for an opinion on the comparative merits of milling machines, and to that tribunal of intelligent men we appeal, and will stand on their judgment whether the Case machine is not inferior, as a whole, to the Smith machine, and further, whether every

feature which enables it to perform as a middlings purifier was not adopted from the Smith machine, with only such modifications of form as would make it seem different, so as to mislead judges who are called upon to try whether or not it is an infringement.

We give all the world fair notice that we propose to carry on the prosecution of our rights against the Case Co. to the end, and whoever chooses to involve himself in the consequences of their final defeat does so with full warning and at his own hazard.

Yours,

THE CONSOLIDATED M. P. CO.
Jackson, Mich.

COMMUNICATION FROM THE STILWELL & BIERCE MFG. CO.

DAYTON, OHIO, June 27, '83.

Editor United States Miller:

Dear Sir—Our attention has been called to a letter of recent date, from Stout, Mills & Temple, which has been going the rounds of the papers, referring to the recent interference suit between Odell and Livingston, and which was decided in Odell's favor at every point, both on the first hearing, and on the appeal, and stating they were not using, on the Livingston rolls, any of Odell's adjustments, and furthermore would not use them as a gift, &c., &c.

We are not disposed to enter into any newspaper controversy with these gentlemen, but will simply state that we claim that all the adjustments of any value on the Livingston Roller Mill, are plain infringements on Odell's patents, and we have brought suit for the same, and will have the question, as to whether the Livingston Roller Mill does infringe Odell's patents or not, determined by the U. S. Courts at the earliest possible day.

Yours truly,

STILWELL & BIERCE M'F'G CO.

THE CASE COMPANY'S OPINION OF THE RECENT DECISION.

Editor Milling World:

From your editorial "An Important Decision" in *The Milling World* of the 14th ult., we extract the following: "This (the Smith) company advises us that in the suit at Columbus, Ohio, it put in issue and argued only one claim in the Geo. T. Smith patent, No. 164,050 and claims 2 and 5 in his patent No. 236,901; while it holds that the Case purifier clearly infringed more than one hundred different claims of Smith's and other patents which it owns. We shall make every possible effort to induce the Case Co. to submit the suit appealed at Columbus to the Supreme Court without arguing, in order that the questions of so much importance to the millers may have an early settlement." This is a new, but very shadowy dodge, on the part of this grasping monopoly, to continue the old plan of intimidation.

The facts in relation to the suit just decided upon in our favor are as follows:

They sued us on 43 separate and distinct claims, and spent two years in gathering their testimony. They employed the best talent in this country. They counseled and retained lawyers of the greatest note, including Hardinge and Thurston, the two great lawyers in middlings purifier cases. Col. Rodney Mason has given a vast amount of time to the case. He employed Renwick, who is regarded the best expert witness in the United States on the scope and validity of patents. Clark, of the Smith Co., was a constant attendant and adviser, and gave to the case ninety-one solid pages of testimony. These experts in patent litigation connived and labored upon every conceivable theory by which they might influence a court, who is not expected to be an expert in the principle of purifying middlings.

They built upon unnatural and strained theories, the shallowness and inconsistency of which would be apparent to any miller, but might mystify and deceive a judge. But undertaking to build up a defense upon a basis which did not have a foundation in fact, it was an easy matter for our attorneys and our witnesses to show the inconsistency of their position.

We will not occupy space in this article to illustrate the ingenious methods taken by this Company to sustain their case, but shall do so soon, in an illustrated pamphlet, prepared expressly to enlighten the millers upon this subject.

When Col. Mason opened his argument he stated that all the recent decisions of the courts were adverse to re-issued patents, and that he could not hope to get an injunction or judgment against us on them, and that he would therefore not occupy the time of the court in arguing these patents, but wished to concentrate his whole time upon such claims as he hoped to sustain.

He had taken a vast amount of testimony upon these re-issued patents and forced us to the necessity of defending ourselves, and we did not propose that the case should go by, without a hearing upon those points.

Another ingenious step taken by this illustrious lawyer, was to undertake to lay aside one of the important claims, that is the one relating to the patent in which the Smith Co. claimed the tubular air discharge at the mouth of the fan, stating that he wished this to go to the higher courts without argument or without being passed upon at this trial. This was a thin but ingenious dodge on the part of the complainants. They well knew that they would be defeated, and undertook to reserve a part of their defeat to some future time, that their unscrupulous, bulldozing Co. might continue their unhallowed work of intimidating the millers, under the pretext that their strongest patents had not been tried or passed upon, and warning the millers that unquestionably we infringed these untried patents, and that they would get judgment against us in the upper courts. But their ingenious dodge did not work.

Our attorneys demanded that, inasmuch as they had sued us upon 43 claims, that the case must be heard upon all the allegations of the complainant, and they carried their point. The case was heard upon all the testimony, and upon all the patents offered in evidence by the Consolidated Co., and judgment was rendered in our favor, and it covers the whole ground, as the decision was that we infringed none of these claims.

Their statement, "We shall make every possible effort to induce the Case Co. to submit the suit appealed at Columbus, to the Supreme Court without arguing, in order that the questions of so much importance to millers might have an early settlement," looks rather thin. They have never made us any such a proposition, and probably never will. We are ready for any legitimate action and we propose that this case shall be argued in order that we may show clearly the lame, the halt, strained and unnatural position to which they have been driven to make even a show of a case.

So far we have not attacked the validity of the Smith patents, as we felt perfectly safe in the legitimate defense of our own, but they must let us and our customers alone. A hint to the foolish who have recently learned a little wisdom, ought to be sufficient.

Yours truly, CASE MANUF'G. CO.
Columbus, Ohio, June 16, 1883.

MILLERS' NATIONAL ASSOCIATION.

Proceedings at its Meeting at the Grand Pacific Hotel, Chicago, Ill., June 26 and 27, 1883.

At noon, June 26, about 100 millers from all parts of the United States, members of the Millers' National Association, met in the Appellate Court Room in the Grand Pacific Hotel. Mr. J. A. Christian, of Minneapolis, Vice-President, in the absence of the President, Geo. Bain, called the meeting to order. On motion Mr. Edward Sanderson, of Milwaukee, was elected President *pro tem.* In taking the chair, Mr. Sanderson thanked the convention for the honor conferred. He spoke of the causes which led to the organization of the Association, the principal one of which was the bringing of suits for infringements of patents which in every case so far had been decided to be invalid. He said, that had it not been for the Association, he believed, that every miller would have been ruined in business by the demands of patent owners. The State and National Associations were now stronger than ever, and the future looked extremely favorable to the trade.

Upon motion of Mr. Seybt, of Illinois, a committee of five was appointed on credentials and permanent organization. This committee consisted of Homer Baldwin, of Youngstown, O., John Ames, Northfield, Minn., D. R. Sparks, Alton, Ill., J. R. Canaday, of Vincennes, Ind., and J. J. Snouffer, Cedar Rapids, Iowa. The convention then adjourned until 2 P. M.

AFTERNOON.—At 2 P. M. the convention was called to order by President Sanderson. Mr. Seybt introduced a resolution of thanks to Mr. F. Wegmann, of Zurich, Switzerland, for the valuable services he had rendered to the millers of the United States by his persistent defense of the suit brought by Downton against The Yaeger Milling Co. The resolution was unanimously adopted.

A resolution of thanks to the officers of the Association and to the members of the sub-executive committee for their untiring zeal and skill in watching and defeating all schemes against the interests of the trade, was unanimously adopted.

Mr. Seybt was then called upon to inform the convention of the progress made in the matter of obtaining a suitable bran-packer. Mr. Seybt made quite a lengthy address stating the importance to millers for obtaining a suitable machine for use in mills having a capacity of 100 barrels of flour per day or more. He said there was now a machine in operation in Chicago, which did the work effectually, but it was only suitable for mills of great capacity, as it was capable of packing six tons of bran per hour. He had exhibited a sample of bran packed by this machine in the markets of London, Liverpool and Glasgow, and it was received with high favor. If the packing of bran for export was generally adopted in this country, there would be a decrease in wheat exports and an immense increase in flour exports, which was exactly what our millers desired. The large export of packed bran would be the means of closing thousands of the smaller mills in Great Britain.

The sub-executive committee asked until Wednesday morning to report, which was granted.

A member of the Chicago Board of Trade announced that there was to be a game of base ball played at White Stocking Park between a picked nine of St. Louis Flour Dealers and Chicago Flour Dealers, and extended an invitation to the millers to go and see the game. No further business being ready the convention adjourned until Wednesday morning, and many of the millers went to see the base ball match.

WEDNESDAY MORNING, JUNE 27th.

The convention was called to order at 11 o'clock A. M., and the report of the sub-executive committee was read and approved. It reported the satisfactory condition of all patent litigation, and also stated that considerable progress had been made toward securing the invention of a suitable bran-packer. All the leading trade journals and many others had published the specifications and offer of a \$1,000 prize to the invention of a suitable machine. It was desired that inventors should distinctly understand that the \$1,000 offered was not to *buy* the invention, but was offered to stimulate inventors to make efforts to produce a suitable machine. The invention of a bran-packing machine which would meet all the requirements, would be in great demand, and would undoubtedly make a fortune for the inventor. The report was adopted as read.

Mr. Seybt said that the John T. Noye Manufacturing Co., of Buffalo, N. Y., had paid \$750, which was one-half of the fee charged by Messrs. Parkinson & Parkinson, of Cincinnati, who, on behalf of the Millers' National Association, assisted Hon. F. W. Cotthausen, of Milwaukee, in defending the suit of Downton *vs.* Yaeger Milling Co., and were deserving the credit therefor and the thanks of the Association.

The matters of bills of lading and transportation came up for discussion, and the letter of Messrs. E. Sanderson & Co. to the Wisconsin and Minnesota Associations (published in UNITED STATES MILLER for April, 1883) was read, and after discussion a committee of three was appointed to inquire thoroughly into the matter and take such action as they deemed for the interests of the Association.

President Sanderson said that, as Mr. Seybt had just returned from Europe, he thought he might give the convention some valuable information of interest to the trade.

Mr. Seybt said, that there were now very large stocks of both American wheat and flour in the hands of foreign dealers, that the crop prospects were better now than they had been for seven years and consequently our millers and grain dealers had no reason to expect high prices for this year's crop.

In answer to the request of the president for crop reports from members from different sections of the country, the following was obtained. The spring wheat crop in Wisconsin, Minnesota, Dakota and Northern Iowa was reported to be in excellent condition; Illinois, condition poor; Indiana, half a crop; Missouri, half of 1882 crop; Kansas, good crop; New York, Maryland, Delaware and Virginia, average crop. Mr. Halliday estimates Illinois crop at 25,000,000 bushels. Dakota crop was estimated at 20,000,000.

Mr. Nicholas Ellis, of Evansville, Ind., chairman of the committee on nomination of officers reported as follows: For President, J. A. Christian, Minneapolis, Minn.; 1st Vice-President, C. H. Seybt, of Highland, Ill.; 2nd Vice-President, Homer Baldwin, Youngstown, O.; Secretary and Treasurer, S. H. Seaman, Milwaukee, Wis.

The report of the committee was adopted. Mr. Christian, the President elect, took the chair. He thanked the convention for the honor conferred upon him and said, that he would serve the interests of the Millers' National Association to the best of his ability.

No further business being before the convention, it adjourned *sine die*.

[Compiled for the UNITED STATES MILLER.]

INDIAN CORN

is a plant indigenous to America, having been found under partial cultivation by the Indians on the discovery of the new world. It is extensively cultivated both in North and South America, and forms an article of food as important to the inhabitants of those regions as rice does in the eastern countries. There is only one ascertained species of Indian corn, although several varieties seem to arise in consequence of differences of soil, culture and climate. The plant consists of a strong, jointed stalk, provided with large alternate leaves, almost like flags, springing from every joint. The top produces a bunch of male flowers of various colors, which is called the *tassel*. Each plant bears, likewise, one or more spikes or *ears*, seldom so few as one, and rarely more than four or five, the most usual number being three; as many as seven have been seen occasionally on one stalk. These ears proceed from the stalk at various distances from the ground, and are closely enveloped by several thin leaves, forming a sheath, which is called the *husk*. The ears consist of a cylindrical substance of the nature of pith, which is called the *cob*, over the entire surface of which the seeds are ranged, and fixed in eight or more straight rows, each row having generally as many as thirty or more seeds. The eyes or germs of the seeds are in nearly radial lines from the centre of the cylinder; from these eyes proceed individual filaments of a silky appearance, and of a bright green color, the aggregate of these hang out from the point of the husk, in a thick cluster, and in this state are called the *silk*. It is the office of the filaments, which are the stigmata, to receive the farina, which drops from the flowers on the top, or tassel, and without which the ears would produce no seed—a fact which has been established by cutting off the top previous to the development of its flowers, when the ears proved wholly barren. So soon as their office has been thus performed, both the tassel and the silk dry up and put on a withered appearance. The grains of Indian corn are of different colors, the prevailing hue being yellow, of various shades, sometimes approaching to white, and at other times deepening to red. Some are of a deep chocolate color, others greenish or olive-colored and even the same ears will sometimes contain grains of different colors. Indian corn is said to contain no gluten, and little if any ready-formed saccharine matter, whence it has been asserted to have but a very small nutritive power; on the other hand, it is seen that domestic animals which are fed with it very speedily become fat, their flesh being at the same time remarkably firm. Horses which consume this corn are enabled to perform their full portion of labor, are exceedingly hardy and require but little care, and the common people of countries where Indian corn forms the ordinary food, are for the most part strong and hardy races. The produce of corn, on a given extent of cultivation, is greater than that of any other grain, and the proportional return for the quantity of seed committed to the ground is equally advantageous. American Indian corn is found growing wild in many of the West Indian islands, as well as in the central parts of America, and there can be no doubt of its being a native of those regions. In favorable situations it has a very considerable growth, attaining to the height of from seven to ten feet, in some cases it has acquired the gigantic height of fourteen feet, without in any way impairing its productive power. Its spike or ear is eight or ten inches in length, and five or six inches in circumference. The plant generally sends out one, two or more suckers from the bottom of the stalk, but these it is advisable to remove, not only as they draw away part of the nourishment, which should go to support the main stalk, but because the ears which the suckers bear ripen at later periods than the others, and the harvest could not all be simultaneous.

secured in the most proper state of maturity. This variety will rarely come to maturity in northern climates. In the Mexican States there are few parts of either the lower districts or of the table-land, whereon it is not successfully cultivated. In the former districts its growth is naturally more luxuriant than in the latter, but even at an elevation

of six or seven thousand feet above the level of the sea, its productiveness is calculated to excite wonder. Some particularly favored spots have been known to yield an increase of eight hundred for one, and it is perfectly common to gather from three hundred and fifty to four hundred measures of grain for every one measure that has been sown. In other places where reliance is placed only on the natural supply of moisture to the soil from the periodical rains, such an abundant return is not expected, but even then, and in the least fertile spots, it is rare for the cultivator to realize less than from forty to sixty bushels for each one sown.

Humboldt states, that in some warm and humid regions of Mexico, three harvests of corn may be annually gathered, but that it is not usual to take more than one. The seed-time is from the middle of June to near the end of August. A great part of the internal commerce of Mexico consists in the transmission of this grain, the price of which varies considerably in not very distant stations, owing to the imperfect state of the roads and the insufficient means of transport.

As an instance of this, *Humboldt* mentions the fact, that during

his stay in the intendency of Guanajuato, the *fanega* (five bushels) of corn cost at Salamanca nine, at Queretaro twelve, and at San Luis Potosi twenty-two livres. It is a fortunate circumstance, and one which should be mentioned as adding materially to the natural value of corn in warm climates, that it will remain in store uninjured for periods varying from three to five years, according to the mean temperature of the district.

This kind of corn is generally planted in the United States, about the middle of May, so as to avoid mischance of its experiencing frost after it is once out of the ground. The Indians who inhabited the country previously to the formation of any settlement upon its shores by Europeans, having no calendar or other means of calculating the efflux of time, were guided by certain natural indications in their choice of periods for agricultural operations. The time for their sowing of corn was governed by the budding of some particular tree, and by the visits of a certain fish to their waters—both which events observation had proved to be such regular indicators of the season, as fully to warrant the faith, which was placed on their recurrence. These simple and untaught people discovered and practiced a method of preserving their grain after harvest, which afforded a certain protection against the ravages of insects, and which might be advantageously adopted in other situations and in climates where this evil is very prevalent. Their method was to separate the corn from the cob as soon as the harvest was finished; to dry it thoroughly by exposure to the sun, and to a current of air; and then to deposit it in holes with mats of dried grass, and covering them with earth, so as completely to prevent the access of air. The second variety of corn has white grains. This kind, which is cultivated in Spain, Portugal, and Lombardy, is altogether a smaller plant than the variety just described, seldom exceeding six or seven feet in height; the leaves are narrower and the tops hang downwards. The ears or spikes are not more than six or seven inches long. The third variety has both yellow and white seeds. It is even smaller than the last mentioned, seldom rising to a greater height than four feet. The ears do not often exceed four or five inches in length. In ordinary seasons it will ripen its grain perfectly in England; and one reason why it has been presumed that its cultivation would prove advantageous to that country is the shortness of time required for its growth whereby the late frosts that sometimes occur in the spring, and the early frosts of autumn, would be alike avoided. This particular variety is cultivated in some parts of North America, from which it is understood to have its origin, as well as in some of the middle regions of the European continent. It is also partially cultivated in Germany, not as a bread-corn, but that it may be malted, and used in the preparation of a kind of beer, or made to yield an ardent spirit. The use chiefly made of it, however, is that of fattening swine, and poultry. In cultivation of Indian corn in northern climates, it is proper to make choice of warm spots, and particularly to avoid shady situations. In order to admit the sun as much as possible to the plants and probably also with the view of affording more nutriment to the grain, it is usual to remove the blades, together with the top and tassel, as soon as its office of dropping its fecundating farina upon the ears has been fully accomplished. This process is very easy of performance. When the blades and tops are perfectly dry, they are stacked and thatched,

and form an excellent substitute for hay and chaff in the spring, both for cattle and horses, as well as for sheep; all these animals being attracted by its sweetness. It may generally be known when the corn is ripened, by the dry and white appearance put on by the husk; a more intimate inspection is, however, accomplished without difficulty. The ears must then be plucked off together with the husks, and conveyed at once in carts to the barn. Here in America, the stalks are usually left standing for some time longer. Being then cut near to the ground, tied into bundles, and stacked in a dry place, they will prove useful as food for horned cattle, which, from the saccharine quantity of the plants, will thrive upon them. The grain forms one-half the measure of the ear, that is to say, two bushels of ears will yield one bushel of shelled corn.

Captain Lyon, in the narrative of his travels in Mexico, has given an amusing account of the mode of preparing *tortillas*, a species of cake made with the crushed grains of corn, which is eaten hot at the meals of all classes of people, the more wealthy using the cakes in the way we are accustomed to use wheaten bread—as an auxiliary to more nourishing aliments—and the peasants being fain to enjoy them as a substantial food, seasoning them, when they have the opportunity, by the addition of chilies stewed into a kind of sauce, wherein the tortillas are dipped. Simple as the art may appear of thus making an unleavened cake with moistened flour, some persons are found to acquire a greater degree of expertness in it than others; and so great is the necessity for their preparation, and the desire of having them well concocted, that, according to Capt. Lyon, "in the house of respectable people, a woman called from her office *Tortillera*, is kept for the express purpose, and it sounds very oddly to the ear of a stranger during mealtimes, to hear the rapid patting and clapping which goes forward in the cooking place until all demands are satisfied."

It is remarked in America, that the emigrant farmers, when they first arrive there, finding a soil and climate proper for the husbandry they have been accustomed to, and particularly suitable for raising wheat, despise and neglect the culture of Indian corn; but observing the advantage it affords their neighbors, the older inhabitants, they by degrees get more and more into the practice of raising it; and the face of the country shows from time to time that the culture of that grain goes on visibly augmenting. *Humboldt* acquaints us that the Mexican Indians, previous to the conquest of their country, were accustomed not only to press the sweet juice from corn-stalks for the purpose of fermenting it into an intoxicating liquor, but they boiled down this juice to the consistency of syrup, giving it likewise as his opinion that they were able even to make sugar from this insipidated juice. In confirmation of this opinion, he recites a letter written by Cortez, who in describing to the Emperor Charles V., the various productions in both a natural and manufactured state which he found in the new country, asserts, that among these were seen "honey of bees and wax, honey from the stalks of maize, which are as sweet as sugar cane, and honey from a shrub. The natives make sugar from these plants, and this sugar they also sell." There is no question that the productions here enumerated will yield saccharine matter; but crystallized sugar, properly so called, is a different preparation, and, from our present knowledge, it is difficult to believe that any such substance could have been so prepared. The Indians, at the period above alluded to, evinced considerable skill in the preparation of fermented liquors, which is by no means lost by the Mexicans of the present day. "A chemist," says *Humboldt*, would have some difficulty in preparing the innumerable variety of spirituous, acid, or saccharine beverages which the Indians display a peculiar address in making, by infusing the grain of Indian corn, in which the saccharine begins to develop itself by germination. These beverages, generally known by the name of *chicha*, have some of them a resemblance to beer, and others to cider. The spirituous liquor called *pulque de maíz*, or *taouili*, which is prepared from juice expressed from the stalk of the corn, forms in some parts of the republic, a very important article of commerce.

Ten sets of the Odell roller mill have been ordered by the Richmond City Mill Works, for the mill of Kenedy & Brown, Shelbyville, Indiana. This mill is to be built on the Odell system. The Richmond City Mill Works have the entire contract.

The Stilwell & Bierce Mfg. Co. are furnishing two Victor water wheels for R. C. Shuler & Co., Minneapolis, Minn.

The Stilwell & Bierce Mfg. Co. have just received orders from E. E. P. McCornack, of Salem, Oregon, for a Victor turbine water wheel.

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, Nos. 116 & 118 GRAND AVENUE, MILWAUKEE, WIS.

SUBSCRIPTION PRICE.—PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid..... \$1.00
To Canadian subscribers, postage prepaid..... 1.00
Foreign Subscriptions..... 1.50

All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.

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[Entered at the Post Office at Milwaukee, Wis., as second class matter.]

MILWAUKEE, JULY, 1883.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

Flour Mill Directory.

CAWKER'S AMERICAN FLOUR MILL DIRECTORY shows that there are in the United States 21,356 flour mills and in the Dominion of Canada 1,488. The mills in the United States are distributed as follows:

Alabama, 388; Arizona, 17; Arkansas, 234; California, 209; Colorado, 52; Connecticut, 309; Dakota, 44; Delaware, 96; District of Columbia, 7; Florida, 81; Georgia, 514; Idaho, 18; Illinois, 1258; Indiana, 1163; Indian Territory, 3; Iowa, 872; Kansas, 437; Kentucky, 642; Louisiana, 41; Maine, 220; Maryland, 349; Massachusetts, 363; Michigan, 831; Minnesota, 472; Mississippi, 297; Missouri, 942; Montana, 20; Nebraska, 205; Nevada, 10; New Hampshire, 202; New Jersey, 445; New Mexico, 28; New York, 1942; North Carolina, 556; Ohio, 1462; Oregon, 129; Pennsylvania, 2786; Rhode Island, 47; South Carolina, 205; Tennessee, 620; Texas, 548; Utah, 129; Vermont, 231; Virginia, 689; Washington Territory, 45; West Virginia, 404; Wisconsin, 780; Wyoming, 3; Total, 21,356.

The directory is printed from new Burgeois type on heavy tinted paper and is substantially bound. It makes a book of 200 large pages. The post offices are alphabetically arranged in each state, territory or province. The name of the mill, the kind of power used and the capacity of barrels of flour per day of 24 hours are given wherever obtained which is in thousands of instances. This work is indispensable to all business men desiring to reach the American Milling Trade.

Price Ten Dollars per copy, on receipt of which it will be sent post paid to any address. Remit by registered letter, post-office money order or draft on Chicago or New York made payable to the order of E. Harrison Cawker, publisher of THE UNITED STATES MILLER, Milwaukee, Wis.

THE Minneapolis Millers had a jolly excursion on Lake Minnetonka, June 16th. We acknowledge with thanks complimentaries to the excursion, and regret that we could not have been with the party.

It is claimed that the abolition of tolls on the Erie Canal has not revived the canal traffic to the extent that was expected. A greater business was transacted on the Canal during May and June 1880 than in those months this year.

CONGRESS has appropriated \$50,000 for the purpose of building a fish-way in the Potomac river at Great Falls. There are certain engineering difficulties to be overcome, due to the rocky nature of the river bed and ice accumulations in the winter.

WE are under obligations to William Dunham, Esq., publisher of *The Miller*, London, for advanced proofs of the recent meeting of the British and Irish Millers' Association. The report entire appears in this number of the UNITED STATES MILLER, which is the only paper in this country publishing the proceedings in full.

EVERY milling journal published in the United States was represented at the Millers' Convention in Chicago. The press representatives held a short meeting of a *purely business* nature, after the adjournment of the Millers' Convention. The *business* was rapidly transacted, and all shook hands and proceeded to scatter towards their respective homes.

THE UNITED STATES MILLER recently received a cablegram from Mr. Adolph Keller of Elberfeld, Germany, stating that Andreas Mechwart, owner of the "bed-rock" roller mill patents, sailed for this country by the steamer Rhinelander, June 16th. Mr. Mechwart is the inventor of what he calls "New process rollers." His invention is patented in the United States. We hope to be able to give more information concerning this matter in our next number.

It has become quite fashionable of late for English syndicates to buy large tracts of land in this country, especially in the South. An English company has recently bought 311,000 acres of land in the Panhandle of Texas; another company has bought 1,300,000 acres of bottom land in the Yazoo district of Mississippi which will be drained and made serviceable.

Another company has bought 2,000,000 acres in Florida which is to be thoroughly drained and divided up into 20-acre tracts, and a house built on each ready for immediate occupation by immigrants. Many large tracts have also been purchased in Kansas and Colorado. Many Englishmen evidently believe that the only place where money may be invested with safety and profit is America.

WE have received the first number of "Grain," the title of a new paper published at Indianapolis, Ind., by Richards & Butler, Mill Builders and Furnishers, and edited by Mr. H. C. Williams. It is announced to be "A monthly journal devoted to flour and grain and the mechanics of their production and manufacture." The subscription price is one dollar per year. The first number promises well for the future of the new paper. Welcome.

THE suit of the Consolidated Middlings Purifier Co. against the Case Manufacturing Co., for infringement, in which the United States Circuit Court decides there is no infringement, was one of more than unusual interest to manufacturers generally.

The very best of legal talent was employed on both sides and a very large amount of testimony was taken. The examination of witnesses was conducted entirely for the Consolidated Purifier Co. by Col. Rodney Mason, of Washington City, and for the Case Co., by Col. James Watson, of Columbus, O. Several volumes of testimony were taken. The arguments occupied three days, Col. Mason and Mr. Geo. Harding, of Philadelphia, appearing for the complainants, and Col. Watson and Gen. M. D. Leggett for the defense.

The case was argued from every conceivable standpoint and listened to with untiring attention and patience by the two judges who constituted the Court. A correspondent writes us that Col. Watson, especially, did himself great credit in his argument of three and a half hours for the defense. He had made a thorough study of the case and was entirely familiar with all the patents bearing on the case, as well as all the law and facts, and when his strong and forcible argument was ended there seemed nothing left to be said in addition, and from that moment it was believed by all that the "die was cast." Mr. Watson has placed himself in the very front rank of patent lawyers.

SUMMER BUSINESS FOR YOUNG PEOPLE.

The Spencerian Business College, Milwaukee, has no vacations, and admits students of both sexes at any time. This gives young people the most profitable employment during the summer months as well as at other times, in obtaining a business education. The value of such an education is apparent to every thinking person. Of the character of the Spencerian Business College for thoroughness and reliability it is unnecessary to say anything. Give the young people a chance to improve their business qualifications. For circulars or information, address R. C. Spencer, Milwaukee, Wis.

WHAT DID THE APOSTLES DO?

In one of the churches in Milwaukee, a couple of Sundays ago, the infant class of the Sunday school, owing to the sickness of the Superintendent, was put in charge of a young man to whom such a position was entirely novel. He saw that the lesson was from the "Acts of the Apostles," and asked the class about them. Next question was "Well, what did the apostles do?" There was silence for a few moments, when the teacher asked "Can none of you tell what the apostles did?" At last a little fellow snapped his raised fingers saying "I know." "Well, what did they do?" The little fellow replied, "They went about doing errands for Jesus." No more questions were asked.

A BAD YEAR FOR RE-ISSUED PATENTS.

The barbed wire patent has at last come to grief, and the granger rejoiceth throughout the length and breadth of the land.

In the United States Circuit Court at St. Louis, on the 4th ult., Judge Treat handed down decisions in two series of cases which practically settle the barbed-wire controversy, concerning which such a wide-spread interest has been excited in the West. The suits were brought by the Washburn & Moen Manufacturing Company and Isaac Ellwood against Henry Fuchs and others. The first series of cases involved the validity of the patents on the invention; the second the validity of the patents on the machinery for making the wire. The earliest barbed-wire patent was issued in 1867, since which time a great number of issues and reissues have been had. Most of

those have been acquired by the Washburn & Moen Manufacturing Company, and Ellwood, the plaintiffs in the cases just decided. Injunctions were sought against the defendants on the ground that they had infringed the patents held by plaintiffs. These injunctions were refused by the court, who held the re-issued Kelly & Gidden patents void on the ground that a re-issue cannot be upheld under an original patent where devices not suggested in the original are imported into the re-issue, making thereby a combination distinct from the original. The second series of cases involving the validity of the patents on machinery, were also decided against the company. The effect of the decisions is to release all restrictions on the manufacture of barbed wire, and to save to the farmers what has hitherto been paid in royalty.

ABOUT BILLS OF LADING.

The objectionable features of the bills of lading issued by the steamship lines plying to the port of New York were recently discussed before the Chamber of Commerce of New York. A special committee appointed to consider the subject reported that in nearly all cases the risks excepted and the conditions imposed are such that the merchant who insures his goods finds, upon examination, that he is not insured against the exceptions and conditions of the bill of lading he receives. Until a reform could be effected shippers were advised to protect themselves by accepting these objectionable bills of lading only under protest, and were told that they might refuse to receive bills of lading containing improper conditions, and according to decisions of American jurists, might hold the ships liable for refusing to issue at their request such bills of lading as custom and the law in this country dictate. The Chamber of Commerce of New York is doing good service in endeavoring to clear up a matter not very generally understood. It is well that the law and the commercial usage in relation to mercantile documents of such importance as bills of lading should be thoroughly discussed, and with a view of bringing about remedies for existing abuses, to be followed if possible, by the adoption of a uniform international system.

ANOTHER PATENT DECISION.

During the past month, another patent case has been decided. The Consolidated Middlings Purifier Co., under whose license the Geo. T. Smith middlings purifiers are manufactured, brought suit in the United States Circuit Court for the Southern District of Ohio, against the Case Manufacturing Co., of Columbus, O., for infringing their patents No. 164,050, and claims 2 and 5 in patent No. 236,101. The Court decided that the middlings purifier manufactured by the Case Mfg. Co., did not infringe on the patents above named, and dismissed the bill of complaint at plaintiff's cost. From this decision the Consolidated Purifier Co. immediately appealed.

This is one of a number of cases which have been commenced in Pennsylvania, Indiana, and elsewhere, against various parties for infringing some of the eighty or more middlings purifier patents owned by the Consolidated Co., evidently to obtain a final decision of the Supreme Court sustaining their claims. It has been said that the Consolidated Co. desired, and had connived at securing the purchase by millers of purifiers that infringed on patents owned by them. It seems to us, that if such was the case they would not have brought suits, at least, for sometime to come, against anyone for infringement. Their action evidently indicates that they believe their position to be impregnable, and that they will finally have their claims sustained by the United States Supreme Court, in which event the collection of royalty from purchasers of infringing machines would prove a rich harvest.

The millers have been remarkably fortunate in regard to patent cases so far and it is to be hoped by the trade that this good fortune may not change.

There is one thing that millers can do, however, to protect themselves in any event, and that is, when buying any patented milling machinery about which there is any question as to infringement, to demand a good and sufficient bond from the seller to protect purchasers from all loss or damage by reason of suits for infringement, i. e.: The seller must agree to assume the miller's defense and pay all costs, charges and damages thereby incurred.

This plan came near being adopted in the matter of dust collectors, in fact the Milwaukee Dust Collector Co. had made out a bond to protect all the r customers, to Sub-Executive

Committee of the Millers' National Association, but before it was filed all the owners of dust-collector patents made a compromise so that all machines now sold by the Milwaukee Dust Collector Co., so far as we know, are fully licensed under all patents.

Millers will do well to consider this matter thoroughly and hereafter refuse to buy patented machinery of any kind about which there is any chance of litigation without first obtaining a protecting bond. As the Millers' National Association has the confidence and respect of the entire milling trade, as well as of the inventors and manufacturers, we would further suggest that with the Sub-Executive Committee of that Association would be the proper place to deposit general protective bonds.

FLOUR AND IRON MILLS.

The New York Shipping List remarks that it has been until recently a suppressed fact in connection with American manufactures that the second in importance as to the value of products is the grist mill, which it is actually first in the value of material used. The iron and steel makers produce annually \$551,543,109 of manufactured products and use \$319,594,000 of raw material, while the grist mills produce \$505,185,000, and use \$441,545,000 of raw material—that is, grain. There is of course a great difference in the number of hands employed and amount of wages paid. The iron and steel men employ 306,598 hands, and pay \$17,422,000 a year in wages, while the millers employ but 58,400 hands, and pay \$17,422,000 a year in wages. The capital invested in mills is \$178,000,000, against \$405,636,000 in iron and steel works. The value of the milling raw material, subtracted from the value of the manufactured products, leaves \$64,000,000; deducting from the \$17,422,000 paid for wages, we have left \$46,578,000, which represents the yearly profits on \$178,000,000 capital invested, less, interest insurance, wear and tear. It is over 26 per cent., while the profits of iron and steel manufacturers, whose operating expenses are much greater in proportion, and who are besides liberally protected, are less than 25 per cent., interest, insurance, etc., deducted from this. Hardly any other manufactures pay as well as those of the millers. The iron and steel men take cheap raw material and expend a great deal of labor upon it.

RECENT MILLING PATENTS.

The following patents were issued May 1, 1883: Combined pneumatic grain elevator, conveyor and cleaner—Mahlon Randolph, Brooklyn, N. Y. Grain Scourer—Barnard & Lowe Mfg' Co., Moline, Ill. Grain Shovel—Michael W. Hanley, Chicago, Ill. Grinding-mill—Geo. W. Doolittle, Kansas City, Mo. Drop-lift for machinery—Lawrence B. Kuhle and William B. Hamilton, Lima, Ohio. Machine for mixing flour and other substances—Philip Thorpe, New York, N. Y. Sprocket for rope and similar belts—Jonathan Mills, Chicago, Ill.

The following patents were issued May 8, 1883: Mill-stuff recovering machine—Drew H. Lord, Northfield, Minn. Millstone balance—William C. Hale, Austin's Springs, Tenn. Automatic paper-bag filler—Thos. H. Hill, Philadelphia, Pa.

Roller-mill—Nordyke & Marmon Co., Indianapolis, Ind. Wheat and Flour Scale—Geo. M. Knight, Adrian, Mich.

The following patents were issued May 15, 1883: Belt bucket elevator—Peter Okell, F't Madison, Ia. Grain-car unloader—John H. Chase, Rochester, N. Y. Conveyor for flour bolts, etc.—Charles B. Slater, Blanchester, O.

Flour-packer—Howes, Babcock & Ewell, SilverCreek, N. Y. Apparatus for reducing grain—Henry F. St. Requier, Asnieres, France.

Grain-drying and cooling shelf—Henry Cutler, North Wilmetham, Mass.

Millstone-driver—John Dempster, Knoxville, Tenn.

Roller-mill—Jesse Warrington, assignor to Nordyke & Marmon Co., Indianapolis, Ind.

Cut-off for screening devices for middlings, flour, etc.—George Cottreal, San Francisco, Cal.

Turbine water-wheel—Cyrus M. Baker, West Waterville, Me.

Patents issued May 22, 1883:

Flour-dressing machine—Edwin R. Stillwell, Dayton, O.

Flour-packer—John Handy and D. H. Lord, Northfield, Minn.

Grain-decoricator—Sillas Dodson, Rochester, N. Y.

Grain-scourer and polisher—Jacob J. Souder, Washington, D. C.

Middlings-purifier—Andrew Hunter, Chicago, Ill.

" " " Joseph W. Wilson, Wyandotte, Ks.

Rice-huller and polisher—Latimer S. Seaver, Boston, Ms.

Roller-mill—Sherman B. Rickerson, Grand Rapids, Mich. (three patents.)

Grain-weigher—William H. Ernst, Chase, Ks.

" " " John Stevens, Neenah, Wis. (two patents.)

Wheat-huller—Thomas T. Kneeland, Tecumseh, Mich.

Patents issued May 29, 1883:

Manufacture of flour from grain—Louis Gathmann, Chicago, Ill.

Millstone dressing machine—Lewis S. Hoyt, Stamford, Ct.

Patents issued June 5, 1883:

Flour-sifting machine—Hermann E. L. Bauermeister, Hamburg, Germany.

Grinding-mill—Edwin G. Hastings, Nevada, Ia.

Grist or flouring mill—Abel Mariotte, Vereaux, France.

Grain-shovel mechanism—John S. Metcalf, Indianapolis, Ind.

Pneumatic and automatic grain transfer apparatus—Lyman Smith, Kansas City, Mo.

Grinding-mill—A. N. Wolff, Allentown, Pa.

NATIONAL ASSOCIATION OF BRITISH AND IRISH MILLERS.

The annual meeting of the members of this Association was held on Wednesday, May 23d, at the Guildhall tavern in the city of London, when Mr. Samuel Smith, President, occupied the chair. There was a large attendance of members.

There were seventy present, the visitors being Major Craigie, of the Central and Associated Chambers of Agriculture; the Hon. Geo. Bain, President of the American Millers' Association, and Mr. John Ross, late President of the London Corn Trade Association; and amongst those present were:

Samuel Smith, Victoria Mills, Sheffield, President of the Association;
R. H. Appleton, Cleveland Mills, Stockton-on-Tees, President elect;
Seth Taylor, Waterloo Mills, London;
Henry Robinson, (Messrs. J. & H. Robinson), Deptford Bridge Mills, London;
George Pimm, Wandsworth Mills, London;
Peter Mumford, Royal Mills, Vauxhall, London;
W. R. Neave, (Messrs. Neave & Co.), Fordingbridge;
S. M. Soundy (Messrs. Eisdell & Soundy), Reading;
H. Harvey Daw (Messrs. Daw & Serpell), Plymouth;
Joseph Westley (Messrs. Westley & Sons) Blisworth, Northampton;
W. E. Westrupp, Imperial Mills, London;
Jeremiah Stannard, Nayland, Colchester;
John Aizlewood, Crown Mills, Sheffield;
Henry Ibbotson (Messrs. W. & H. Ibbotson), Britannia Mills, Sheffield;
Richard Wigfull (Messrs. J. Wigfull & Son), Sheaf Mills, Sheffield;
T. W. Hubbard (Messrs. Reynolds & Co.), Gloucester;
J. A. Ingleby, Tadcaster;
Arthur Watson, Edgbaston, Birmingham;
John Heatley, Eaton Market, Drayton;
James Horsfall, Perseverance Mills, Leeds;
T. C. Greensmith, Hilton Mills, near Derby;
F. B. Nettlingham, Gravesend;
John Biggs, Bromham Mills, Bedford;
George Webster, Broxbourne;
Russell Harris, Tavistock;
Thomas Lewis, Bangor;
J. W. Rush, *The Miller's Gazette and Corn Trade Journal*;
W. C. Hepburn, *The Miller*;

The PRESIDENT, in opening the proceedings, said: Gentlemen, I am very pleased to meet so many old faces that have met together on so many former occasions, and to see my friends in such good health and with such radiant countenances, from which indications we may conclude that they have had a good and prosperous year. [Laughter.] Another year has been added to the life of our Association, I do not know that anything very extraordinary has been done in it to characterize it, but I think, on the whole, that we may congratulate each other on a fair year's work having been done by the Council as the representative of the Association. Our Secretary has prepared a report which I will now call upon him to read.

MR. CHATTERTON then read the annual report as follows:

The Council deeply regret to have to record the death of their esteemed colleague, Mr. Frederick Richardson, of the Bishopwearmouth Steam Flour Mills, Sunderland, which took place on the 24th January last. Mr. Richardson was one of the earliest promoters of the National Association, and was unanimously elected to the post of President on the 11th May, 1881. Although residing at a greater distance than any other member of the Council from the headquarters of the Association, Mr. Richardson rarely failed to attend the meetings, and his loss has been felt by all the members as that of a personal friend.

NEW MEMBERS.—The Council have pleasure in stating that the number of members has slightly increased, and, as will be seen by the accounts furnished by the Treasurer, the revenue has been sufficient to meet the year's expenditure.

BRANCH ASSOCIATIONS.—No new branches have been added to the Association during the past year. The millers of Birmingham have, however, formed a local Association in that town, which it is to be hoped will, if successfully carried on, see the desirability of affiliation to the National.

TECHNICAL EXAMINATIONS.—Recognizing the importance of the milling industry, the City and Guilds of London Institute for the Advancement of Technical Education have acceded to the request of your Council, and have added milling (flour manufacture) to the list of trades in which they will hold examinations, and to the successful candidates they offer certificates, medals and prizes. Your Council have also, together with the assistance of a few of the leading millers and engineers, established a prize fund, now amounting to £70 16s. 6d., from which they will reward those candidates who, in addition to passing the technical examinations in milling, will also show their proficiency in science by passing certain other examinations, conducted by the South Kensington Department of Science and Art. Nearly 60 millers, foremen and apprentices have been studying with a view to this competition.

GERM MILLING COMPANY'S CLAIM.—Your Council have paid considerable attention to this claim, and can only repeat their recommendation of last year at Leeds, "That in their opinion the claim need not be regarded." Should any action be commenced by the patentees, your Council will immediately call a special meeting for the purpose of forming a defense fund to resist the claim. Many members of the Association and other millers have expressed their desire to join in such defense.

BILLS IN PARLIAMENT.—Of these three only affect the interests of millers. First—The Bankruptcy Bill; This has been considered by your Council and thought to be unobjectionable, and one that might be fairly left to be dealt with by the associated traders who more especially devote their attention to this subject. Second—The Rivers Conservancy and Floods Prevention Bill; No complaints having been made by millers as to the probable working of this Bill, it passed, your Council have not made it a subject for special consideration. Third—The "Corn Sales Bill, 1882"; This bill having been drawn up by Mr. Rankin to meet the views expressed by the various chambers of agriculture and commerce, which have discussed this subject for many years past, as well as the bill of the milling and corn trades in 1878, has received the cordial

support of your Council, and your Secretary was directed to prepare a memorandum thereon, which has been sent to every member. This Bill has been opposed by the London Flour Millers' Association (which seems to have changed in its view during the past four years) and by the proprietary of the London Corn Exchange, and a memorial has been presented to the Board of Trade. In view, however, of the declaration that no Government support will be afforded, and the congested state of public business, it is likely that the important subject of one uniform weight for the corn trade will yet be the subject of much friendly discussion before a final decision can be arrived at. To assist in arriving at this conclusion, an important work, which has received the Highland Society's gold medal, is now in the press, entitled: "What is a Bushel of Corn?" wherein the writer, after examining the subject in every possible light, shows that the cental is the most desirable unit for the sale of all grain.

CORN RETURNS ACT, 1882.—This Act, although materially altering the position of millers, by dispensing with the required declaration before a magistrate, of the miller's intention to make returns of all British corn bought by him before he could be proceeded against, was passed through Parliament unobserved by any one connected with the trade, and only on its becoming law was the attention of your Council directed to it. This being a question that affects the British farmer, and all tithe payers, as well as the milling trade, your Secretary drew attention to it at the annual meeting of the Northamptonshire millers, who passed a resolution, and at the following Council meeting another resolution was passed, and forwarded to the Board of Trade. The answer thereto, and a letter prepared by your Secretary, has been communicated to the milling and farming journals, and a resolution will later on at this meeting be presented for your acceptance. Communications have been received from a leading member of the Central Chamber of Agriculture, thanking the National Association for the noble way in which they have raised the question, and at a meeting of the Council of the Central and Associated Chambers of Agriculture, on May 8, the following resolution was passed by that body:

"This Council, while recognizing a great improvement in the re-arrangement of returning markets, and the verification of sales by weight, think the opposition by the Association of Millers to the return of re-sales justifiable, and also wish again to record their opinion that only the first sale from the producer should be returned for the purposes of the Tithe Rent Charge."

CORN TRADE CONTRACTS.—The attention of your Council having been more than once directed to the one-sidedness of the contracts in general use for the purchase of foreign wheat, a committee was formed from the three Northern Millers' Associations, and conferences have been held with the Hull Corn Trade Association. No report has, however, been drawn up yet. Your Council sent a resolution on the 12th of March to the London Corn Trade Association requesting them to alter their contracts in such a manner as to "allow of one of the arbitrators being selected from the National Association of British and Irish Millers, instead of being limited to two principals engaged in the corn trade as merchants, factors, or brokers, and members of the London Corn Exchange or Baltic," to which their committee replied that they could not accede to the request, and at the same time expressing their opinion that their contracts, as they now stand, are exceedingly wide and comprehensive.

NEW PROCESSES IN MILLING still continue to be brought forward to assist the miller as well as to puzzle him, as to what he shall adopt to meet the increasing competition. Two gentlemen only have availed themselves of the facilities offered by your Association for public discussion, and at a meeting very largely attended on the 31st July, papers were read by Mr. Chisholm on the Jonathan Mills' system of gradual reduction, and by Mr. H. J. Sanderson on high grinding by Nagel and Kaemp's system.

In conclusion, your Council would earnestly impress upon members the desirability of getting other millers in their respective localities to join the Association, many of whom it is quite certain would do so if they were only asked.

The PRESIDENT: In rising to move the adoption of this report, I must ask your permission to refer to the loss which the Association has sustained in the death of our departed friend, Mr. Richardson. He was the most active and helpful member of this Association—in fact we may call him the foster father of it, and I am sure that there is not a gentleman present who does not regret that his face is not to be seen amongst us to-day. The report notices the fact, but I may here say that when Mr. Richardson's death was announced, a thrill of sorrow ran through the whole Association, and your Council took an early opportunity of sending a letter of condolence and sympathy to his widow and family. Those of us who had the opportunity of witnessing the funeral of our lamented friend and of seeing the very high esteem in which he was held by his townsmen, who necessarily would know him better than we did, needed no other proof that the very high regard in which he had always been held by the members of the Association was not misplaced. Mr. Richardson was always ready to do any good work. He was cut down in the very prime of his life, and this Association in him has lost a valued friend. Although my acquaintance with him was very limited, I had learned to esteem him more highly, I think I may say, than any other gentleman that I knew, for in all his intercourse with individuals and with this Association, he showed himself to be a liberal-hearted and noble-minded man, and a man of great business ability. I am sure we shall all regret that we shall look on his face no more; he has been removed from us by the order of Providence, against which we can raise no voice, but I hope that some other noble-hearted miller will come forward and step into his shoes, and will strive with his wonted zeal and wisdom to help on the interests of this Association. We have many noble men amongst us, and if his mantle would but fall upon them it would mitigate to some extent

the loss which the Association has received by his death. Turning to the report, I would say that I entirely agree with the concluding paragraph, namely, that more members would join if they were only asked. We cannot ask many more in Sheffield, for I think that all the Sheffield millers have joined, and other places might well imitate Sheffield in this respect. The report fairly represents the work of the Council during the year. They have been most assiduous in watching the interests of the Association and in giving their best thoughts towards promoting its best interests when the opportunity occurred. I beg to move the adoption of the report.

M. HIBBARD (Gloucester): I have much pleasure in seconding the resolution. With regard to the late Mr. Richardson, I can only say that I knew him intimately, and I knew him to be a good man in every sense of the word. I sincerely hope that, as the President has said, some good miller will come forward and follow in his footsteps, for he could not follow a better man.

The report was then adopted.

MR. ROBINSON (Treasurer) then moved the adoption of the financial statement for the last year, which showed a balance in hand of £57 0s. 9d. The members' subscriptions amounted to £222, Leeds contributing £25 6s., London £19 12s 1d., and Sheffield £16 5s. 6d. Mr. Robinson concluded by saying: This report shows our finances to be in a healthy condition. I should, however, like to see our income larger, for then we could expend more, and I believe that more money could be profitably expended by this Association.

MR. ASHBY seconded. The question for us, he said, is to consider how to increase our income. I hope that in future many millers who are not associated with us will show their interest and their patriotism by becoming members. This is called the National Association of British and Irish Millers, but the Irish millers did not show very liberally in their subscriptions towards this "National" Association. I notice that in the list from which we shall re-elect nine members of the Council there is not a single Irish miller, and that Ireland is not represented by any one on the Council. I should be very pleased to see an Irish miller on the Council for next year, and then perhaps we shall receive a greater number of subscriptions from the sister isle.

The PRESIDENT: I should not like to sing our praises too much, but when one sees the London Association contributing about the same amount as Sheffield, we are induced to ask, "How is it? And when we find Leeds subscribing more than London we may ask more emphatically still, "How is it?" We are grateful to all friends who contribute to this Association, but somehow we should be glad to see an improvement in this respect. I know from the history of the past that one gentleman declined to subscribe to the Association on the ground that he could get as much information out of *The Miller* for 5d. as he could get out of the Association for a guinea. Now that gentleman knew the value of pounds, shillings, and pence, but I may say, in the presence of our secretary and of the editor of *The Miller*, that he forgot that it is their combined efforts which make *The Miller* of so much value to the trade as it is. It is by working harmoniously, and by playing into each others' hands, that *The Miller* is able to carry so much information to those who only pay their 5d. per month for it. There is every reason why the Association should be supported as well as the newspaper.

The resolution adopting the treasurer's report and balance-sheet was then carried.

THE PRESIDENT: I rise now with pleasure on two accounts—one is, that by your act to-day I shall be relieved from the responsibility of the presidency of this Association. I have felt during my term of office that I was placed here not because I sought for it, not because I expected it, but on account of the kindly feelings towards me. So many friends willed

it that I accepted office. I bowed to their decision. It is true that I have had no extra arduous work to perform in my year of office, but I have felt that you were not so well represented as I hope you will be in the coming year. It is somewhat of a relief when you have a pressure upon you that you can see your way out of it, and in retiring I feel that I shall be relieved from a responsibility. Because I retire I shall not take less interest in your Association; on the contrary, I shall feel that I shall work with much more freedom because there is less responsibility resting on my shoulders. I can only say that I have had the utmost help and support and counsel in every time of need from all the friends who have met me at the council, and they have helped me to bear up under the great weight

which I felt to be on the shoulders of the president of this association. Men ought to consider that the milling is the greatest manufacturing interest in the kingdom, if we except agriculture, as we shall recognize when we consider that in this interest 100 millions of money are turned over every year, and the value of the plant employed in it. It is, as I have said, a large interest; it is worthy of every encouragement; it is worthy of the efforts of every miller to put it in its right place in the scale of trades and professions; and I am sure that if millers as a class only fully recognize this, they would contribute towards this Association much more largely than they do at present. (Hear, hear.) For the reasons which I have given it will be a pleasure for me to resign this chair, and that pleasure is enhanced by the confidence I feel that I shall resign it to one who will fulfill the duties of the office better than I am capable of doing. I have communicated with a gentleman whom you all know, and who I am sure you all esteem very highly. He has always been a very able supporter of this Association from its commencement, he has always been ready to contribute to all good works, and he has originated matters that have greatly benefitted the Association. The Council deliberated in their choice of president for the ensuing year, and they were unanimous in selecting Mr. Appleton. (Applause.) I could say a great deal more of this gentleman if he were absent, but I know he is a gentleman of modest feeling, and I do not think that further praise from me on this occasion would be acceptable to him, and so I shall embrace an opportunity when he is not present to tell you a little more of the esteem in which I hold him. (Hear, hear.)

MR. DAW (Plymouth): I have been asked to second this motion for this very curious reason—because I live at the other end of the country to Mr. Appleton. (Laughter.) If it were necessary to select some one for this office who was unacquainted with Mr. Appleton, then I should be a most fitting person; but although I have not had the honor and privilege of a personal and intimate acquaintance with Mr. Appleton, I suppose we are all more or less acquainted with him through the milling journals. Mr. Appleton's name stands in the Association in the first rank of millers, though gentlemen living nearer to him than I do, know better than me the business ability which he brings to the management of his own business affairs. My first impression of Mr. Appleton was received from a description of the fire extinguishing apparatus in his mill; and I then thought that any gentleman who took such pains to establish a fire brigade in his own mill showed the possession of a spirit certain to single him out as fit to stand in the first rank of our milling association. (Hear, hear.) I think, gentlemen, we may consider ourselves as extremely fortunate in our presidents. First we had Mr. Alderman Hadley, with whom we were so pleased that we elected him again and again; then there was Mr. Richardson, whom we all highly esteemed; and then last, but not least, is Mr. Smith, whose qualities are well known to all of us; and I do not think that our Association will suffer in having Mr. Appleton. An expression of the esteem in which he is held went forth at the unfortunate affair when he was attacked by one of his workmen. On that occasion the Council sent him a letter of sympathy, and we all know how that letter was approved by the Association. I trust that the proposal now before you will have the hearty approval of every member of the Association, and I have great pleasure in seconding it. (Hear, hear.)

The PRESIDENT: Mr. Appleton will be the right man in the right place.

The resolution was then put and carried *nem. con.*

MR. APPLETON (who was received with cheers): Mr. Chairman and gentlemen, I can assure you that I am placed at present in a difficult position, having to hear all the kind things that have been said of me, but in the first place I must take exception to Mr. Smith's stating that I shall be able to perform the duties of the presidential chair better than he has done, for I can assure you that one of the considerations most likely to prevent my accepting the honor offered to me was that I could not meet the requirements of the Association so well as the able presidents who had gone before me. When I think of Mr. Alderman Hadley, Mr. Richardson, and now Mr. Smith, I feel as if I should not be able to support the dignity of your Association as former presidents have done, and I

am inclined sometimes to doubt whether in selecting me you have taken the right step. Your selection of me took me quite by surprise, but since you have done me that honor I am ready to do my best to serve your interests in the position in which you have placed me. (Hear, hear.) If you look back on the last year's work of the Association you will find that, though no very large work has been done, the Association has yet worked continuously for the millers generally. The report shows that a great many important matters have come before them, and that their action will be of incalculable benefit to the milling trade. I will mention one subject that before long will demand attention, namely, the revision of the insurance companies' rates. When the fire offices settled their rates for the insurance of mills, stones were universally run in mills, and they made their rates accordingly. We all know that our large millers are gradually passing from the stone to the roller system, and the fire insurance tariff gradually will require thorough revision. Before that revision takes place I think that there ought to be some movement on the part of this Association to prepare a plan for a reduction of the insurance tariffs by taking into account the number of advanced mills with the mills in which stones are only run. We know at the last revision of that tariff the action of this Association was of the greatest importance, which showed the insurance offices that they were wrong, and a great alteration was consequently made by them in their tariffs. But before there is another revision I think that there ought to be a joint committee between the millers and the insurance offices to consider the whole question. (Hear, hear.) Then there is another subject of great importance to the milling public, and that is the interchange of ideas on the improvements made in advanced milling in the present day, because improvements are continually springing up with regard to the different plants and their arrangement and management, and if half a dozen subjects could be brought forward for discussion the result would be a great benefit to the milling public, and probably of great advantage to the Association itself. (Hear, hear.) I do not wish now to prolong this meeting, but before coming to a conclusion I will briefly refer to the death of Mr. Richardson. No one present, perhaps, was so intimately connected with him as myself, for he was my close neighbor. I was with him during the visit of English millers to Vienna, and saw more of him than I had ever done before. Our friendship ripened by this continuous intercourse, and at the end of the visit my opinion of him was higher than before, as a man of business and a practical man. I look upon the paper which he read before the Association as the best and most practicable paper ever read before the Association, and I therefore deeply sympathise with you in the loss which you have sustained by his death. I thank you again, gentlemen, for the honor that you have done me, and again I promise you that during the term of my office I will do the best I can for the Association. (Applause.)

Mr. WESTLEY moved, Mr. NEAVE seconded, and it was carried by acclamation that Mr. Robinson be re-elected to the office of Treasurer during the coming year.

Mr. ROBINSON accepted the office and returned thanks.

On motion of the PRESIDENT, seconded by Mr. WIGFULL, Mr. Downing was re-appointed to the office of auditor.

Messrs. Neave, J. Harrison Carter, Watson, and Ashby were appointed scrutineers for the election of members of the council, to supply the vacancies caused by the nine retiring councilmen.

THE CENTAL.

The PRESIDENT: Your Council have thought that it would be of great advantage to the trade if the central or some uniform standard for the sale of grain, were adopted. We hope that our efforts in this direction, not yet fruitful, will in time be rewarded. The Council, however, have agreed to the following form of petition, and ask your permission for their chairman to sign it on behalf of the Association. The petition is as follows, and may be presented to any member of the House of Commons for presentation:

"To the Honorable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled, this humble petition sheweth that

"Whereas there exists at the present time great confusion amongst the weights and measures now in use in the corn trade, in the different parts of the country, so that great uncertainty has arisen as to the value of corn sold in the different markets, and whereas it appears most desirable that one uniform standard of weights should be established throughout the country for all dealings in corn, and whereas a bill entitled the 'Corn Sales Bill, 1882' has been introduced into your Honorable House this session, by Mr. James Rankin and other hon-

orable members, with a view to carry out this object; your petitioners humbly beg that your Honorable House will be pleased to pass the above-mentioned 'Corn Sales Bill,' and your petitioners will ever pray."

I beg to move that you authorize me so to do.

Mr. APPLETON: I second that motion with great pleasure. It must be obvious to everyone here that the weights at which wheat is sold throughout England is most perplexing and annoying. You can hardly go into a market fair a few miles out of the metropolis without finding wheats sold at 60, 62, 63 or 64 lbs. to the bushel, and some 500 lbs. to the qr. The state of the case is this: here we are advanced in civilization and in the 19th century, and here, in England, with all our greatness, we have no fixed weight for the sale of corn. (Hear, hear.) I think it is absolutely necessary that we should now try and get some definite weight fixed on for the sale of all our corn. Attempts have from time to time been made to see whether some arrangement could not be come to amongst the different markets in different places for the establishment of a uniform system, but it has been found that they cannot come to any definite conclusion, that it must therefore rest with the Government to fix a definite weight at which wheat shall be bought and sold. This question is now to be brought before the House of Commons by Mr. Rankin, and it is our duty to support him in the best way we can. (Hear, hear.)

Mr. IBBITSON: The London Flour Millers Association have discussed the cental, and have condemned it as not suitable for their trade, but I think if they meet us here that we could give them very good reasons for altering their opinion. (Hear, hear.) I have many times been in London with the view of discussing this subject, but the members have never thought it worth their while to come to the meetings of the Association. If we are to be so thwarted in this matter I think that sooner or later we shall have to form an association in the north, and let them come down there instead of our coming to London to transact our business. (Laughter.) Then, again, what little we are able to do in the north is undone again by the London millers, and so I think that we shall have to legislate by-and-by for our own district. "A word to the wise" is sufficient—(renewed laughter)—I am, however, glad to say that Mr. Robinson has been an honorable exception to the generality.

Mr. ROBINSON: I am glad of the compliment. I support the petition with pleasure, because although London millers can bear hard work, they are conservative in their ideas, and it is very hard to start them unless you put a golden bait at the end of the line. (Laughter.) They were not unanimous about their condemnation of the cental, but they outnumbered the rest of us who took a wider view and regarded the benefit to the trade at large rather than the interest of London millers. We can do without the cental, but on the whole the adoption of the cental system, in my opinion, would prove a great benefit to the country.

Mr. DAW: In the South of England, particularly at Plymouth, we worked hard for this cental system, and we succeeded in carrying it. We worked it for a considerable time until we found that millers near by us did all they possibly could to upset it, and sent flour into our neighborhood at any weight that was asked for. At last we were very reluctantly obliged to abandon it; and it would be no use to attempt to carry it in our neighborhood in future unless the government made its adoption compulsory. (Hear, hear.)

Mr. ROBINSON: I should like to have the question fully argued in London, because one of the arguments used here against the cental is, that it has been tried and abandoned. That is a strong argument in use against the cental.

Mr. ASHBY: It will be well to present petitions to Parliament, and so strengthen the hands of the Government another time should the Corn Sales Bill be unsuccessful now.

The PRESIDENT: I need not make any observations on the subject now, as my views have been fully made known in the columns of *The Miller*. When the question was first moved I took a deep interest in it, and I am quite sure that if the milling interest and the farmers could only be made to see the benefits of the system they would carry it through the whole country. But you cannot interfere at once with vested interests and old customs, and so long as persons in one district can sell at 60lbs., 61lbs., 62lbs., or 65lbs. to the bushel, so long will you obtain opposition to any new method. And I don't think that uniformity will be obtained except by compulsion. (Hear, hear.) You cannot get every person to see their own interest in one light. I

talked on the subject with one farmer at Doncaster. I put it to him in this way—"You sell your wheat at 63lbs., if the cental were adopted you would sell at 500 instead of 504lbs. He replied, "We should like that." But I am afraid that the interests of some of our friends in the South would be in a different direction, and they would oppose it. I have heard it stated by dealers that they don't want any uniform weights and measures, as it would put the buyer on the same terms as themselves. I don't want to say anything about the morality of that argument, but if you are buyers instead of sellers you can take your own thoughts upon it.

The resolution was then carried unanimously.

THE CORN RETURNS ACT.

MR. SOUNDY: The time has passed by when any law must be considered good because it is in the Statute-book, nor can we admit that a law is reasonable and good because it suited our forefathers. I think that both of these objections may be raised against the Corn Returns Act as amended in 1882. It might have done, and did do, for the original purpose of fixing the amount of duty which was then fixed on the sliding scale of the year 1790. Most of you remember that the duty on corn then was regulated by the price obtained for English corn in our markets, and it was therefore desirable that the first sales and re-sales should be stated in the returns made. Since that the returns have been made for another purpose—a purpose with which some of us agree and some of us disagree—I refer to the tithe rate, the Tithe Rent Charge Commutation Act. 1836. These returns were then issued for the purpose of fixing the amount that should be paid year by year by the farmers to the tithe owners throughout the United Kingdom. And at that time the average price was something like 52s. for wheat, 32s. for barley, and 21s. 3d. & 21s. 6d. for oats. The returns that have been made since that time have tended to give to the tithe owners far more than it was anticipated would be given to them by the Act; and I think we shall see if we look carefully into it that the effect of the Act. has been that the tithe owner got in the year 1880, instead of 20s. in the pound, 21s. 10d. in the pound; that is to say, £109 17s. 9d. instead of his £100. We can very well remember that year, the year 1880, was not the most favorable to those who farmed, and that the grower of corn did not reap nine per cent. more benefit from his crop than he was entitled to look for in the price and quantity of the corn that he grew. But yet, though the price was low, instead of their paying, as was contemplated in 1836, rather under £100, through these fallacious returns that are being continually made throughout the country, these poor and unfortunate farmers had to pay £109 17s. 9d. One may ask why are these returns fallacious? And the answer is this: because these returns have to be made in 150 towns in the United Kingdom, and if you go carefully through the schedule of these towns those who know about the trade will see that they are some of the biggest markets, that they are the very centres from which the samples are brought and sold in the small markets in the surrounding districts. And besides that, a great many of them are centrally situated, as far as millers are concerned, and so a great deal of the corn that is brought into one particular market comes by rail from outlying districts, and in many cases to the price returned through re-sales is to be added not only the profits of different dealers but the cost of railway carriage. The cost of transit and the profits of dealers have all to be taken into consideration, and the poor unfortunate farmer is therefore duped to a certain amount which goes into the hands of the tithe owner. Now we object to this on the ground that it is not just (and we English love a touch of justice) in this way—the Government of the present day insisting on us in the trade making faithful returns of the corn we buy, whether we buy of the grower or of the dealer, each time that we purchase we are doing an injustice to the farmer, wherever he is situated. This is the way in which the Act provides that such returns shall be made:

"Every such buyer of corn as is hereinabove mentioned in any town from which corn returns are, for the time being, required by this Act to be made, shall, weekly, on the last market day in the week in that town, or on any such other day as may be from time to time fixed by Her Majesty in Council, make to the inspector of corn returns for that town, at the place fixed, as in this Act mentioned, a return in writing signed by him specifying, with respect to the seven days ending on and including the day on which that return is made, the amount of every parcel of each sort of British corn bought by him in the town, whether from the producer or otherwise, and the price thereof and the weight or measure by which the same was bought, the name of the seller, and if the same was sold or bought on account of any other person, the name of that person, and if an inspector of corn returns delivers to a buyer of corn required under this Act, to make returns a notice in writing, requiring him to declare where and to whom, and in what manner, any British corn was delivered to him, such buyer shall make a return of the particulars so required in a separate statement in writing signed by him."

So you see we have no option. By this Act we are compelled whether we will or not, with a liability of £20 per day for every market day, if we fail to make the return. We are compelled to make the return, and yet we know that by making the return we are acting very unjustly towards those who have to pay the tithe. The returns that you have to make you will find in another clause in the Act, as follows:

"The average price of any sort of British corn for any week shall be ascertained by adding together the total quantities of that sort of British corn appearing from the summaries of the inspectors of corn returns to have been bought during such week, and the total prices for those quantities as appearing from the said summaries, and by dividing the total prices by the total quantities as so ascertained. The quarterly or yearly average prices shall be ascertained by adding together the weekly averages of the weeks included in such quarter or year, and dividing the total by the number of weeks in such quarter or year respectively."

You see that is the way in which the corn returns are to be made. In each week the average price during the next preceding week of each sort of British corn for the whole of the towns, that for each town from which a summary is obtained is to be computed. After each quarter-day the average price of each sort of British corn during the quarter ending on the quarter-day is to be computed. But that is not so when the average is to be ascertained for making up the tithe-rent charge, for then the inspector has to make his computation in this way: he has to add together the total quantities that have been bought during the weeks included in such quarter of year and dividing the total by the number of weeks in such quarter of the year respectively. Coming up this morning in the train I tried an experiment in this matter, and knowing, as one who is accustomed to the trade must know, how prices vary in different periods of the year without any special cause, I found that there was a difference as between six and one in the quantity of corn brought into the markets at different times of the year, and that in the markets of September and October six times as much English wheat is brought into the country markets as in July and August, and, therefore, as a rule, is cheaper then in proportion to the foreign. If you take June, July, and August, when wheat is comparatively scarce, and make an average with September and October, when it is six times as plentiful, divide the sum total by the quantity bought, and then divide the total by the number of weeks, you will see that there is a considerable disadvantage to the tithe payer, and I cannot conceive why the Government should have ordered the returns to be so made unless for the purpose of helping the tithe owner, which is quite contrary to the avowed intention of the Act itself. This, then, is one reason why we should protest most strongly to the Government against this Act, which is so irksome and so irritating to the feelings of the trade generally—not only to millers but to dealers in corn—and to insist that this Act should be at once repealed, and to submit that if the Government require returns to be made for statistical purposes, and for the purpose of fixing the amount of tithe rent-charge then this Act should be repealed, and that the farmer himself, or at all events the person buying of the farmer, alone should make the return. If we look at the matter carefully we shall, I think come to the conclusion that it is the grower who ought to make the return. There are now about two hundred towns scheduled from which returns are to be made. In these two hundred towns they cannot accurately ascertain the amount of corn grown in this country. Some may say that there will be disadvantages to some persons on whichever system the returns are made, but it will be a great advantage to the country if the Government ascertained correctly the description of corn absolutely grown in these islands. For statistical purposes the only way that the Government can possibly correctly ascertain the amount grown is to get their returns from the growers themselves. The moment that the corn gets into the hands of the dealers the same corn is turned over and over again, the farmers get mulcted, and the Government are deluded by the statistics which they get. I now move the following resolution, and ask that it may be sent to the President of the Board of Trade, signed on our behalf by the president. Mr. Soundy then moved as follows:

"That whereas by the Corn Returns Act, 1882, millers are called upon, subject to a fine of £20, to make returns

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of all British corn bought in certain scheduled towns in England, whether bought from the producer or otherwise; and whereas such returns, originally required for other purposes, are now, under the Tithe Commutation Act, used for fixing the Tithe Rent Charge, and also for statistical objects, this meeting is of opinion that the Corn Returns Act, 1882, is vexatious to the trade, and should be amended for the following reasons:—1st. That owing to the corn bought by millers being in many cases purchased from dealers, and therefore bearing several profits, in addition to railway charges, the value of the Tithe Rent Charge will be considerably increased to the prejudice of the tithe payer. 2nd. That for statistical purposes the returns prepared by the Board of Trade will be even of less value than at present, because (a) more returns of re-sales will be included; (b) the apparent quantity of corn sold will be increased, and (c) the prices realized for British corn will give a false value to producers' profits. And that the Act should be amended by requiring returns to be made by the producer only."

MR. ROBINSON: I shall be very glad to second the resolution. I have been brought up with the idea that tithes are very wrong, and I suppose that idea will always remain with me, for it has been burnt into my bones. I have very little to say on the subject after the speech which you have heard from Mr. Soundy, who has put the points most clearly before you. The only good that I can see in these corn returns is that they are of some statistical good, enabling the Government to ascertain the annual produce of the country, which is an important thing, and more important perhaps to millers than to any other body. But with regard to tithes, I think that they are wrong altogether. I am somewhat of a farmer as well as a miller, and I speak as one interested in the matter of these returns. I do not see quite how accurate returns are to be made. If a farmer only returns his sales of corn, then the returns will not show the produce of corn in the country, for all his offal corn and tail corn he will use himself or give to the pigs, and this will not come into the calculation at all. I do not pretend to say but that there is a charge upon the land in the shape of tithe—there is an ownership belonging to someone which I maintain belongs to the nation in the shape of tithe, but I won't enter into the general question further. All that we contend is that the statistics founded on these corn returns are fallacious in the extreme.

MR. SOUNDY: Since I knew that I was to propose this resolution to-day I have made some inquiries amongst farmers in different neighborhoods. In 1880, when the land tithe charge was £109, one gentleman said he sold 100 quarters of barley, whereas in average years he sold 300 quarters for malting purposes. The 100 quarters he sold at 36s. and the remaining 200 quarters he used, and therefore they never appeared in the returns at all, and I knew he estimated their value at 23s. per quarter. Now, if he had brought those 200 quarters on to the market and got them put through, he would have reduced the average price of his barley something like 7s. per quarter. Another gentleman told me he usually sold 400 quarters of wheat from his farm, but in 1881 he only sold 50 quarters, which I bought of him at 38s., 60 lbs. per bushel; the rest, he said, he could not bring into the market, and that if I saw it I should say it was only fit to put down in the yard. He had ground it and given it to the cattle. But even the amount of corn that he had returned only went to add to existing fallacies in the Government return for the country. It is easy to get a number of such instances, and I cannot do other than urge upon the farmers to bring all their tail corn into the market and by it back again.

MR. STANNARD: I suggest that after the words "in addition to railway charges" in the resolution, we should insert the words "sea and canal charges," because we have very often these to pay in addition to railway charges. It is so in my district.

THE PRESIDENT: Would not the words "rail way and other charges" meet the case?

MR. STANNARD: Yes. So far as statistics are concerned; if farmers made the returns we should know better what was actually grown, and the Government would be better informed. So far as the farmers are concerned there would be no difficulty in getting this done. The only question would be with regard to unsold corn. How would the farmers return what they had never sold? We should have them estimating their unsold barley at 24s. when it was worth 30s. Their returns of the value of unsold corn would not be accepted by any Government. If there were more market buildings, that would help matters very much. At present the Government is deceived by requiring a second return of the sales of corn.

MR. ASHBY: It makes one's blood boil to consider this tithe question. I am old enough to recollect the time when the rent-charge

was in lieu of duty, and see how it was then collected. The vicar, or tithe owner, used to collect his tenth—of corn he took his tenth sheaf, and in so doing took things as they came, the good with the bad, the damp and the tail. He had to cart it away, and thresh and sell it; but now things are quite changed, and all that is done for him. Now he gets the head, not the tail nor the damp; it is carted away, threshed, and ground, and converted into money, and the money handed over to him. But legislation on this question is all of a piece, as anyone will see who studies the Acts of Parliament passed since the time of Elizabeth. It is all one side; it is all the question of the man who is going to pocket the money arranging with himself how much he shall pocket. Then, if we consider the question from a statistical point of view, and ask the farmer to return the prices which he gets for his corn, we shall be departing from a sound economical principle, for it is not a sound principle to make a man return the details of his own trade accounts. It is, therefore, not practical to make the producer return prices which he has obtained for his produce. The returns should be confined to the actual purchasers, and the average of tail corn every 10 years should be deducted from the prices settled as the average. The tail and bad quality, the cost of rail and carriage, the mode of arriving at the average, as specified by Mr. Soundy, must all make an enormous difference; and in addition to these there is the fourth question to be put before the Government, viz., the injustice done to the farmer by the present mode of taking returns.

THE PRESIDENT: It is very evident that the question of tithes is not agreeable to anybody. I remember when tithes were taken in kind that a farmer who was not on the best terms with his incumbent sent word to him that he was going to pick-in apples that day, and he must come and take his tithe. The reverend gentlemen came, and was taken into the orchard. The farmer picked nine apples, and told the reverend gentleman to take his tithe off them, for that was all he was going to pick that day. Well, that was a case of difficulty for the clergyman, who probably thought that the farmer was not well disposed towards him. The question is a large one, and if I had the ability I should shrink from discussing it in a meeting like the present. A clergyman discussing the tithe question quoted from scripture to the effect that the tithes were brought to the storehouse; but the gentlemen who objected to tithes said: "Yes, they were to be brought but not to be fetched by Act of Parliament," and added, "if you will wait until we bring them it will do very well for us."

The resolution, as amended by Mr. Stannard, was then carried.

ELECTION OF THE COUNCIL.

The ballot papers for the re-election of nine gentlemen to fill the places of the members of the Council retiring by rotation were then distributed.

The President read a letter from Mr. J. W. Mullin stating that he was leaving the country, and that it would be undesirable to re-elect him.

THE ANNUAL DINNER

was held at half-past six, in the Guildhall Tavern, the president in the chair, and covers were laid for 62.

The customary loyal and patriotic toasts having been duly honored,

THE PRESIDENT said: We have now arrived at a toast which concerns ourselves, which we therefore call the toast of the evening. I wish the toast were in abler hands, but as all our friends knew I have the interest of the Association at heart, I don't think that I can say more now than I have previously said—namely, that so long as I live I shall be willing to make any effort to contribute towards the benefit of the Association. I can only say that during my time of office I have received the greatest courtesy and kindness from all my friends, who have taken me by the hand in a manner that I could not anticipate, and have rendered me every service, so as to make my year of office as light as possible. I beg to thank you, gentlemen all, for your kind offices, and to propose the toast of the "British and Irish Millers' Association and local branches," coupling with it the names of Mr. Seth Taylor, Mr. Westley, and Mr. Ibbison.

MR. SETH TAYLOR: I am unworthy of the honor of being selected to return thanks to the toast to our noble selves—though I do not think that we need be ashamed of ourselves. With regard to the work of the Association, what it has done recently we are all current in, but we have to thank the execu-

tive for the great labors and exertions of years ago. An association of this kind is I think, mostly valuable for exceptional work and for occasions of great emergency. We have not every day work sufficient for such an Association, and if the Association is constantly engaged in the consideration of minor details, then we run the risk of lowering its value. But there are important questions which sometimes crop up at short notice, when an association is able to get more fair and equitable terms for the trade as a whole than we could as individuals, and then its value becomes apparent. I represent the London branch, and we hold our meetings at hours to suit our country friends, but at hours when the members cannot conveniently be present. There was a meeting here this afternoon, and I must congratulate myself on being absent, or I might have had my appetite spoilt by some of the references made to London members. I do not wish to introduce business matters, but I am told that some important subjects were discussed at this afternoon's meeting. First of all the Corn Returns Bill, which has engaged so much attention. As returns are made now they are not only useless but worse, they are misleading. Wheat is sold two or three times over—the same parcels I mean—and as to the returns giving any idea of the yield of the country that is quite beside the question. I quite agree with those who have already discussed the question, that it is unfair to pay tithes plus the cost of carriage; to reduce the practice to that point of absurdity which would make it appreciable to the official mind, we might go one step further and add to carriage the cost of converting the corn into flour. If the returns were made by the growers we should get returns from the whole country and not from a few towns as now; and then the returns would be useful for the purposes of the tithe, and most useful for statistical purposes. With regard to the other question, the new Sales of Corn Bill which Mr. Rankin was to have introduced into Parliament to-day had not the House of Commons adjourned on account of the Derby, I know that I am in a minority here with regard to the views that I hold. I rather fancy that my friends in considering this question are inclined to confuse two distinct matters, namely, the desirability of adopting a uniformity of weight in the sale of corn, with the desirability of adopting the cental system. There is a great deal to be said in favor of having uniformity of weight, and the cental system is getting all the benefit of the arguments that should be used in favor of uniformity in weight only. If uniformity of weight is adopted, such system should be adopted as would be of the least inconvenience throughout the country. The imperial quarter of measure for wheat now in force in different parts of the country, so far as the London Association is concerned, should have received their support. There is a sweet simplicity about the cental, but there are difficulties in the way of the fantastic and fantastical things which attach themselves to the cental system. To be by no means exhaustive I will give you a few illustrations. The cental multiplies figures very much, and unless we go in for decimal figures and weights throughout the country the cental will only add to the existing confusion. I am by no means an advocate for large numbers. When I hear a Frenchman talking about millions of francs, I would rather talk about hundreds of thousands of pounds, the idea is simpler. Instead of millions of bushels, I would rather talk of thousands of quarters, and, to my mind, calculations in quarters are much simpler and more easily grasped. I think if the country were polled from north to south that you would find more objection to than in favor of the system. If the cental will do for corn it will do for other trades as well—take coals, for example, if we had the cental and a man wanted four tons of coals at 25s. per ton he would have to order 90 centals at 14d. per cental—and I think after a little experience a man would much prefer to have his bills made out in the old style. If, as I have said, the cental is good for corn it is good for other trades as well, and I do not see why the corn trade should be called on to "bell the cat." The process of calculation of wheat by the quarter is now well known, and the importation of the newfangled cental would only be to "make confusion worse confounded," instead of introducing greater simplicity into our system. Then, again, with regard to statistics, all our official returns with regard to the growth of our imports are based on the quarter, and why we should throw over the old lines without good reasons being shown to the contrary I have yet to learn. The Lon-

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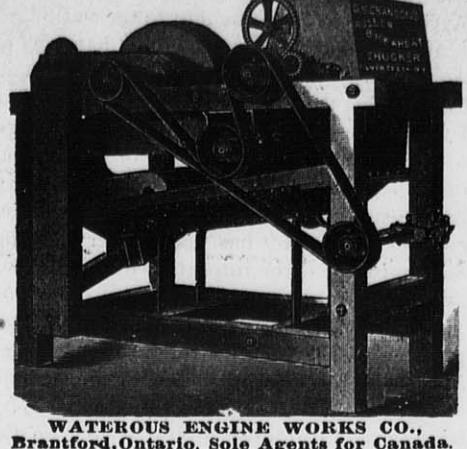
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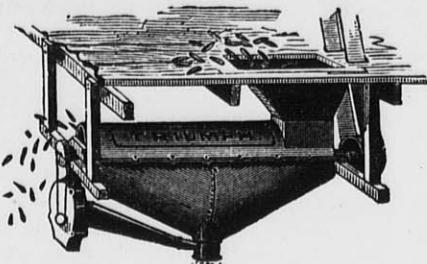
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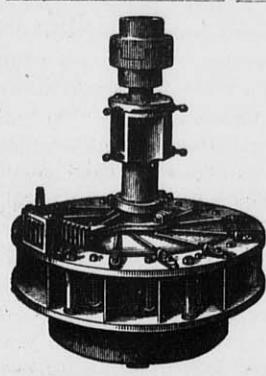
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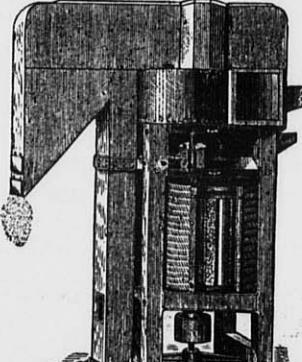
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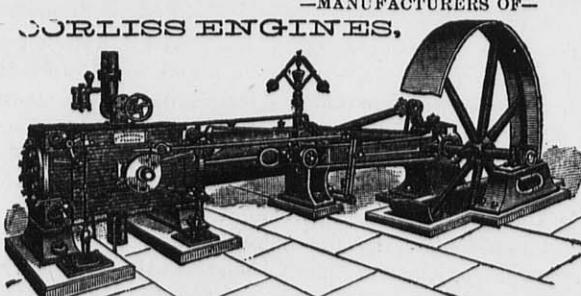


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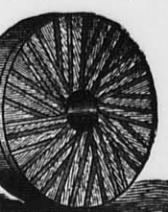
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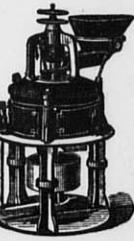
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[Please mention the United States Miller when you write to us.]

don corn trade has taken steps in antagonism to the adoption of the cental system. The oat and barley trades are still stronger against its adoption. Oats vary from 44 lbs. to 32 lbs. per bushel—oats are sold at per bushel, and it would be inconvenient to sell at per cental, for then some sacks would be only two-thirds full, and others would, if possible, be more than full. Then, with regard to sacks, if the cental were adopted we should have to alter our denomination of sacks of flour—smaller packages, would be introduced, and, where a large trade is done, an additional outlay in sacks alone of several hundreds a year would be necessitated. The more packages you have of necessity the more you will increase the cost. The smaller the number of sacks that you have to provide, the greater the economy. Then take the charges on returns of empty sacks, the greater the number of sacks the greater the charges under this head of trade expenditure. These I think are the principal reasons that I can now put forward as objections to the introduction of the cental, and I think that many of those who have been fascinated by its apparent simplicity will take a different view of the question after considering it a little further.

Mr. WESTLY: I represent one of the small branches of our Association; I am sorry that we are not larger, but I have done the best I could to induce others to join and to form other local branches. I am glad to say that Birmingham has an association, and I hope it will be successful. I had hoped that Oxford and Banbury would have formed one. I went over to Banbury and attended a meeting, and though an association has not yet been formed there, I hope that one will be before long. Now, in regard to the cental system we know that Londoners do not see the question as we do. We think it would be a very good thing for the trade if we could have uniform weight of some sort. If not the cental, then we will take the best we can get. In our district we have very little difficulty. We buy 62 lbs. to the bushel for wheat, the same as here in London—as for the cental I do not see any difficulty about its adoption. The smallness of the quantities would not make any difference in calculation if we have five centals to the quarter, as in Liverpool. It is no more trouble in Liverpool to say so many centals than to say so many quarters in London. The adoption of the cental would be a great benefit to the farmers, though not of so much benefit to the dealers. It would also be a great benefit to millers whose wheats came in any weights. I have heard friends say that one lot of wheat has come in to them in five or six different weights, and it is a difficulty with them in mixing wheats at 54, 60, 62, 63 lbs. to the bushel. It would be better all round to have one uniform weight to the bushel, and the Government should compel it. Nor would there be any great difficulty about the sacks; if the sacks now in use were not quite right, they would soon come right. I wish, gentlemen, that we had more branch associations in connection with the National, so that we should have a better income and do better work.

Mr. IBBITSON: If Mr. Taylor would only come to some of our markets in the north, he would find himself converted into a Babbage Calculating machine before he could readily deal with our trade.

Mr. TAYLOR: Are you arguing in favor of a uniformity or of the cental system? I am, as I have said, in favor of a uniform system.

Mr. IBBITSON: Both.

Mr. TAYLOR: It will be better to keep them apart.

Mr. IBBITSON: I do not see why the cental would not do for other trades as well as corn—it is as easy to order so many centals of coal as so many tons. With regard to the sacks, the best plan will be to charge for them. We in the north have looked very carefully into this question, whilst London millers have not had time to give to it—they are so busy getting rich, that is the secret. The meeting of this afternoon was nearly unanimous in favor of the cental, and if it was only adopted there would be a great saving of wear and tear. We in Sheffield intend "dogging" at the question, and to do our duty by the National. If we cannot get the "dog to wag the tail," we must get the "tail to wag the dog."

Mr. STANNARD: We may not quite fall in with the views of our northern friends nor with those of Mr. Taylor, but whenever I have explained the question to the farmers in my district they have come to the conclusion that it would be the best thing for them to adopt the cental system. If you let the farmer know that five centals will go to the quarter he will invariably say, "I am satisfied," al-

though before he opposed any change. The farmers oppose change from a suspicion that we are going to take advantage of them. Mr. Taylor spoke of the inconveniences of selling by weight.

Mr. TAYLOR: I do not take exception to selling by weight. We might have an imperial quarter of weight as a standard.

Mr. STANNARD: Now we have 492, 496, 500, 504 lbs. as quarter; why cannot we simplify matters, and have 500 lbs. as a quarter, and sell five centals as a quarter?

Mr. TAYLOR: That is a new idea.

Mr. STANNARD: It is no new thing in America. If you make five centals a quarter the difficulty about sacks will be got rid of. There is no difficulty about having a weight standard. You get from California and Dantzig 500, St. Petersburg 496, Odessa, 492, America, 480 lbs. to the quarter, and other standards from other places too numerous to mention. If you adopt the five centals (500 lbs.) to the quarter you will simplify matters so much that people will be able to understand them.

In two or three local markets on the east coast you ask the price per 10 lbs., per 5 qrs., per 12 lbs. The next man comes up and he asks 50s.; the next man, and he asks 25s.; another comes up and he will sell per stone. At Ipswich and Bury you find everything almost sold by the 18 stone. You go from one market to the other, and you hardly know what you are doing; in the same market even you get different weights. It would be fair to all if we got one uniform weight. If there is no other difference in the things, you have only to judge the quality and decide between them. With uniform weight you get your weight and quality. Now, it is very often trying to the patience to find the great differences that there are in corn from the same wagon. I have had as much as 36 lbs. difference in the weights of two quarters out of the same wagon; I have been assured that both came from the same heap, and I can well believe it. Mr. Taylor would not be able to sell all the flour he does if he had to buy in this way. I cannot see that the adoption of uniform weight would put Londoners to any inconvenience, unless indeed it made the matter too clear for them. I have stated facts which can easily be confirmed by any country miller, and I could easily bring witnesses before a committee of the House of Commons to establish them.

Mr. TAYLOR: All Mr. Ibbitson's and Mr. Stannard's arguments have been addressed to the question of uniformity of weight, and they are in accordance with what I have stated. Only what I object to is that the denomination should be the cental. The London Association is quite agreed as to the desirability of there being uniformity.

Mr. HULTON: In North Hants we buy by measure. In some seasons 254 lbs. would go to a four bushel sack. One thing, however, is certain, you cannot move the farmers in our district; they have been in the habit of buying by measure, and you will not get them to sell by weight instead of by measure, unless an Act of Parliament compelling them to do so were passed.

Mr. STANNARD: Some difficulty has been made about the weight of a sack of flour if a change were made. I maintain that it would be a very great convenience for a sack of flour to contain 250 lbs. instead of 280 lbs. If you were to take 30 lbs. off a man's back you would get a great many men to offer for situations who do not offer now. 250 lbs. per sack of flour, 500 lbs. per quarter of wheat, would be a very good change. Then about the old sacks—they would come in very well; there need be no sacrifice on account of that change. If a sack held 250 lbs. instead of 280 lbs. the extra number of sacks would not amount to very much. On the other hand men would take less wages that carry sacks of 250 lbs. than sacks of 280 lbs.

The PRESIDENT: I am glad to find that Mr. Taylor is very much nearer in his opinions to those who advocate the cental than I had anticipated, especially after reading the memorial published against the system. This is not the time nor the place to go thoroughly into a question of this kind, especially as it has been thoroughly threshed out in the milling publications. If Mr. Taylor will give us uniform weight, we shall have no great difficulty about converting him to the cental, for I believe it to be a corollary, and that it would follow as natural as life. Mr. Stannard has put it to you that you should have your sack of flour 250 lbs., and your quarter of wheat 500 lbs., and those who have read the letter which I published in *The Miller* on this subject, will know my opinions, which have not changed. It is a difficult thing to get men able to carry 20 stones of flour, but if the

sack were reduced to 17 stones 12 lbs. you would get ten men offer to do the work where you get one now.

Mr. TAYLOR: You must not talk about "stones" but centals.

The PRESIDENT: We may get to centals by-and-by. Only one other remark. Reference has been made to Liverpool. I dare say if Liverpool men were asked to go back to the old weight and practices that they would laugh at you. That is an answer to Mr. Taylor's arguments about the difficulties of adopting the cental. The Liverpool people found that by its adoption they could carry on their business with greater ease, and if we could buy at Hull, in London, and from the farmers on the same system, the conduct of business would be as simple to us as it is to them. It is true that there is a table of weights that you can study. If a man goes into the market to buy 50 parcels of wheat at these various weights, he has to look at a book, and while he is looking another man comes in and buys them.

Mr. TAYLOR: The best man wins.

The PRESIDENT: We cannot all be clever mental calculators. I should like for us to have the fullest information on this subject. I do not care if the bushel is fixed at 63 lbs.; but if it is fixed at 63 lbs., I say let us have the cental—250 lbs. for a sack. I have studied the question, and in my opinion the adoption of the cental would quite revolutionize the trade. Some of our millers, especially the Yorkshire millers, who are so tortured now, would live longer for the change. At all events we should bring our flour to one uniform weight, even if we bought our wheats at different weights.

The PRESIDENT announced that the scrutineers had made their return of votes for members of the Council, and reported that eight votes each were given for the last three. The return was as follows: Mr. Ibbitson, Mr. Marriage, Mr. A. E. Shackleton, Mr. W. H. Dawe, Mr. Peter Mumford, Mr. Jónas Hadley, Mr. Morton, Mr. E. Appleby, Mr. T. W. Hibbert, and Mr. E. Richardson. As only nine could be elected, the tie between the last three raised a little difficulty.

Mr. ROBERTSON said that Mr. Jonas Hadley would not be able to attend the meetings of the Council.

Mr. DAWE said he should be unable to come from Plymouth very often to attend Council meetings, and all difficulty would be at an end if his name was struck out.

After a discussion, it was agreed that Mr. Jonas Hadley should be communicated with, and if it was true that he would be unable to attend the meetings of the Council as stated, to allow his name to be withdrawn. On his withdrawal the other gentlemen named will be the newly elected members of the Council.

Mr. SOUNDY: It is with pleasure that I now rise to propose a toast to the "Central Chamber of Agriculture," and at the same time I have great pleasure in coupling with that toast the name of Major Craigie, who is one of our guests here to-night. Unfortunately for me I know very little about this Chamber of Agriculture. I believe it is rather an aristocratic institution, and being a bit of a democrat myself I do not know much about it. I am, however, very glad to find that this Central Chamber has taken a lively interest in the Corn Returns Act, and all I can say is—and I say it most heartily—that any association which takes up that question as it ought to be taken up, deserves our warmest support. I could suggest one note for them to play on their fiddle—a note that we have not yet brought into our discussion—and that is that at the present time those of us who make returns have often to make returns of an imperial quarter, as we call it. It is estimated that that is 480 lbs. of wheat, but it is not infrequently that we buy 520 lbs. for this imperial quarter; and if you take that into consideration in making up the tithe rent-charge, you will see in the returns that the farmer is credited with receiving a certain price per quarter of 480 lbs. instead of 520 lbs. which he actually sells. And you can work out for yourselves how this goes against him, and in favor of the tithe owner. The object of this Central Chamber of Agriculture is to promote agriculture throughout the country, to assist people in a knowledge of the scientific principles of farming, and to advise them in all that will promote the welfare of agriculture. The welfare of landowners and tenants should be the same, but unfortunately landlords and tenants cannot always see with the same eyes. As a small farmer I cannot see the same as my landlord as to the value of his land. But if this Central Chamber, being, as I have said, somewhat aristocratic in its connections, works principally in the interests of the landlords,

yet if it works along side of—though sometimes in opposition to—the Farmers' Alliance, the time will come when this Chamber of Agriculture will be a benefit to the nation.

Major CRAIGIE (of the United Chambers of Agriculture): I have to thank you very much for drinking this toast, and to assure you that I have the greatest pleasure in attending here to-night to meet the members of an association about which for the past few years we have heard so much. Since this Association has been formed it has taken a very leading part in two or three important questions that affect not millers only, but on all questions that affect the raising and disposing of the produce of the soil. I refer to such questions as the corn returns, and to the weights and measures to be used in selling corn. Mr. Soundy, in proposing this toast, said he did not know much about chambers of agriculture. I hope he will soon know more, for I should very much like to make his further acquaintance. We do not at all desire to be regarded as an "aristocratic" association, but with regard to agriculture we claim to be quite catholic—as we claim not only to belong to landlords but to tenants. We try to represent fairly not the interests of one section but of the whole body, and I am sure that the landed interest—landlords and tenants—is one that the gentlemen I am addressing have closely at heart, for I cannot but suppose that milling is closely connected with agriculture. Not only in this country but in many other countries for the past few years agriculture has been under a cloud, and therefore, as a society watching legislation in Parliament, we have had to keep our eyes more than usually open to the influence which present legislation may have on the future. It has been my duty, almost my privilege, for many years to examine every bill, whatever it may be, that has entered or left the House of Commons, and for the last twelve or thirteen years every bill of every description has passed through my hands for the purpose of seeing whether it in any way affected the interests of agriculture. The Corn Returns Act, I may assure you, has received attention at our hands. The Act as it is now was intended merely, as many of you know, as a re-enforcement of an original law which got into disuse, and it was put in force and carried by the present Government rather for the purpose of getting over present difficulties than as a final settlement of difficulties. We have raised, and the millers have raised, doubts as to the correctness of the corn returns published in the *London Gazette* as representing the produce of this country. Mr. Taylor this evening has carefully pointed out that these returns do not represent, nor do they indeed claim to represent, the value of the produce of this country. But what they do is to represent the value of the produce which is bought by the consumer. Originally these returns were established when the duties were on the exportation of corn, the object being to get the price that the consumer had to pay after the corn passed through the markets, the Government wishing to know what price was obtained for it. This should be borne in mind by those who study this question. But things have greatly changed since 1835, and as a matter of statistics these returns are not now nearly so accurate as they were when originally framed, and do not form any criterion of the value of the produce of this country. If the Government look for an accurate return—and any return would be valueless which was not accurate—they must get it in some other way; and I do not think Her Majesty's Government could do better than appoint a select committee to inquire into the best mode for taking these returns, and before this committee members of the chambers of agriculture and of your Association could give most valuable evidence. I hope that the agitation raised by our Chamber and by your Association will pave the way to a thorough inquiry, and in that case the Chamber of Agriculture will act with the British and Irish Millers' Association to get a thorough revision of the Act if it can be done. Uniformity of weight and the adoption of the cental is another matter to which our Chamber has given great attention. Thirteen years ago we had a proposal before us, and although there have always been minorities against any change whatever, the great majority of us are in favor of a change which this Association generally approves, namely, the institution of a uniform weight and of a standard measure for the sale of corn. We have carried a resolution in favor of that change, which I hope will hereafter prove of value in urging the Government at no very distant date to deal with this subject. Of course you cannot expect to see any such change carried

out at once, and the question is not one on which you can expect Parliament to legislate the same year in which a bill is introduced. The question doubtless must be discussed, and there is no place like Parliament for discussing such a subject. I am sorry that the adjournment of the House over to-day has deprived Parliament this session of the opportunity of discussing this question. For my part I doubt if you can have uniformity in weights and measures without compulsion; and I am bound to say that the majority of gentlemen with whom I act like the central system. It is with much pleasure that I have heard the arguments adduced here to-night, for I am sure that I shall carry away much instruction. If at any time the Millers' Association need the support of the Chamber of Agriculture we shall be glad to co-operate with you when we can, and lend our experience to so important a body connected with one of the most important trades in this country.

Mr. PETER MUMFORD: The toast which I am entrusted to propose is that of "The Corn Trade Association." This Association is composed of many excellent gentlemen who have conducted its affairs for some years. The Association has been in existence five years, I think, and has taken an interest in subjects which, if adopted, would be of considerable advantage to us. The adoption of the central system has been before them, and the question of contracts is one which we as an Association might bring before them. It is well known to most of us that we have to buy corn on forward contracts, and the shippers are able to do pretty much as they like with us. A great many are honest men—millers are particularly honest men—but we have to bear all the damage in the transit of wheat from America, whereas we have not to bear sea damage from the Black Sea. We run considerable risks under the most favorable circumstances, and we ought to get rid of this one if we can. This is a subject which might be brought before the Corn Trade Association, and in which the Association might assist us.

Mr. ROSS: I had the honor of being elected the first president of the Corn Trade Association; it was at first difficult to bring discordant elements into harmony, and form the Association on an independent basis, but ultimately we succeeded. The question of contracts received a great deal of attention during the early years of the Association, but the committee could only take into consideration contracts entered into on the general basis on which the trade was carried on at that time. There were settled rules. The Black Sea trade was done in one way and the American trade was done in another way, and the contracts were entered into in accordance with the views of those representing houses in the various trades. It is for Mr. Mumford and other great buyers to combine and alter the principles upon which the trade is conducted, and if they will make up their minds and communicate with the Corn Trade Association, we shall be happy to consider their views. It is for buyers to dictate to sellers; if they do not like the terms of sellers they must say so, and sellers generally find means of accommodating themselves to their customers' views.

Mr. ROBINSON: In moving the next toast, "The National Association of Millers of America," with which I have the pleasure of coupling the name of the Hon. George Bain, I desire to acknowledge the very great courtesy which I and my brother millers received from his hands during our American visit. I met Mr. Bain in Cincinnati three years ago, and as he knew that I came there simply to spy out the land, he gave me a much stronger welcome than I had any right to expect. From the model of the American Association, of which Mr. Bain has for years been the president, we have formed ours, and I am sure that you will all give him the most hearty welcome.

The PRESIDENT: I am delighted that Mr. Bain is amongst us to-night, and that we may be able to return a little of the kindness and courtesy with which he received the English millers who visited the Cincinnati exhibition of milling machinery. Mr. Bain was the life and soul of the exhibition. We cannot show him the extent of courtesy which he showed us, but if he will come to Sheffield and spend a few days with me he will find that we have a sound heart at the core, and we will give him a hearty welcome.

The Hon. GEORGE BAIN: I thank you heartily for the kind way in which you have proposed my health, though I think you value too highly the little that I was able to do for you when you came across to our exhibition. We had not the chance of showing you half

enough. Though I had some 600 or 700 people to look after I did what little I could for you, and I am glad that my efforts were so appreciated. I have been in this country some two weeks, during which time I have received many pressing invitations to visit mills, but I have not yet put my foot in one of them, and for this reason—in these days of change I was afraid to go into a mill for fear that I might learn something. I read nearly all your speeches; I get *The Miller*; I have great respect for the gentlemen who run it; I read nearly all that is said in it, and I had made up my mind that you had gone quite ahead of us. As a Scotchman, I have been conservative, but latterly I have been taught that the world don't stand still, for whilst the millers of the United States have been going on, I have been following the lead of the English millers and standing still. I have learnt better lately and have gone ahead, and I think it would be good for all of us if we were to visit each other's mills more, and I know from late improvements that there is much to be done to make milling a greater success in the future than it has been in the past. Within the last few days I read in *The Miller* a communication from a gentleman saying that better flour was offered in some town in Ireland than was offered by American millers, but that the people preferred the other, whilst the Irish milled flour was the best. Now, that seemed strange to me. If the flour that you make is better than our own it will be preferred; if we make better, depend on it we shall be your competitors. Depend upon it we have more than sufficient milling capacity in the United States to last us ten times over, and of course we have to find a market for our surplus. I think that the Britishers are too large-hearted and too much imbued with the spirit of free trade to allow any one to get away with them if they can possibly avoid it. Now, we are going to fight you—that is quite confidential—and you will want to get all the improvements you can with which to fight us. We have no bad feeling whatever against you, we like to see you worrying about your cents and 480 lbs., they don't worry us. We like to hear gentlemen from Chambers of Agriculture informing you of corn returns, we have nothing of the kind with us. We make flour, we send it here and we make money.

Mr. HIBBARD: In proposing the toast to "Mill Engineers," I do so with sorrow that any milling engineers were ever invented. If we had been content to go on as our forefathers, listening to the music of our stone damsels trotting around, we should have had none of the worry which now besets us. Our mill system is in a transition state; mill engineers bring new systems forward, and undoubtedly that which is proved to be the best will prevail. But which is the best? that is the perplexing thing for millers. So far as my experience goes, for foreign wheats the roller system is a necessity, the product being so very superior. In this country we have some of the very best of the mill engineers, and I believe that the friction of brain against brain, and competition, will bring everything out all right.

Mr. J. H. CARTER: We do feel the friction, but I can assure you that I feel the friction of having to make a speech far greater than the friction in setting up a roller plant. Mr. Bain has just told us that America is going to fight us. We mill engineers are joined with you, you admit us to your Association, and the reason why you allow us to be members is that you feel as Mr. Bain feels—that there is a fight going on, that there is to be a fight in the future, and that you look to us to carry on that warfare. We are members of the same army, though of a different regiment; our duty is to supply you with the best machines we can and receive your suggestions for improving them, but do not think that any flour coming from any one continent is going to stop your manufacture? You must know that this country owns a great proportion of the ships of the world, our merchants send them to every part, and do you think that they are going to come back here in sand and ballast when they can get grain cargoes? No, they will bring back wheat, and that wheat will be manufactured into flour by you, if you keep up your machinery to the highest point of excellence as you are now doing. If the people of India and other countries cannot get one price from you, they must sell their grain at a lower. A straw will show which way the tide runs. There is a gentleman here from Calcutta, a manufacturer of wheat bags, and he told me that he has ordered £30,000 worth of machinery for the manufacture of bags in which to send Calcutta wheat here—which you will manufac-

ture into flour. There is no occasion for members of this Association to suggest that you should spend money more liberally, for you have spent money without stint in improvements; but there are millers outside of this Association, and I should like to see them doing their best to keep the excellence of the manufacture of flour up to the highest point. It is as impossible for them to think of competing with America with the old machinery, as to think of winning the Derby with a dray horse.

Mr. SNYDER, in the absence of Mr. Stewart: I am over here from America to argue with the weapons which Americans themselves use. I think that, with their bravery and intelligence, British millers will be able to make a good stand before Mr. Bain if they are armed with Mr. Bain's weapons. We propose to let you have his weapons for you to fight him with.

Mr. B. CORCORAN: I do not think that American machinery is altogether fitted for English milling, for in English country mills the process must of necessity be with the millstone, and the whole process gone through in one operation. I know I am in a minority here, but opinions change. Some years ago it was thought that the millstone would not touch middlings, and now it is thought that the millstone is the best for making middlings. It is not easy to bring forward a machine that has all the capacities of a millstone, which does in one operation what other machines do in several—their work being more subdivided. The idea now is to break up the wheat and finish it with the stone; in two or three years hence we may find that it is only the largest millers who are in favor of the breaking down system.

Mr. SANDERSON: Milling engineers have done their best for you; the recent mill exhibition shows that their heart is in their work, and that they have spared neither time nor money. I differ with Mr. Corcoran with regard to the millstone. It may be true that the millstone has not been properly developed and manipulated, but when the roller has been brought into actual competition with the stone it is acknowledged that the roller is superior.

Mr. HIBBARD: It has been suggested that there should be another milling exhibition next year. A notice has been sent out to mill engineers, and fourteen out of twenty-one are willing to hold an exhibition next year. It is the owners of systems, the exhibition of which costs a great deal of money, who are not just now willing to co-operate. The systems that we have in vogue now are likely to last for the next ten years, and what we want in the meantime is a more intimate acquaintance with details, so as to prevent costly stoppage of the works at any time.

The PRESIDENT: It will require more unanimity amongst mill furnishers than there is at present before there can be another exhibition.

Mr. HIBBARD: I thought I would mention the subject to give our friends an opportunity of saying something.

The PRESIDENT: My last duty will be a pleasant one. I am proud of having been elected your president, but I have felt that I could not discharge the duties of the office satisfactorily to myself. If, however, I have succeeded in doing so to the satisfaction of my friends around me, that is compensation enough for me. You have very wisely appointed a gentleman to be my successor, and I feel sure that in him you will find a president who will guide you with much wisdom and prudence and all the other excellent qualities during the coming year. You have unanimously appointed my good friend, Mr. Appleton, to be president for the coming year. You all know the excellent way in which he has rendered help to the Association at all times, and I feel that you have done the right thing in electing him. In retiring from this chair, I beg to thank you all for the courtesies and kindness which I have received from you, and I know that you will accord the same to my successor. I don't often venture to turn prophet, but I think I may venture to do so on the present occasion, and prophesy that in his hands this Association will have as great success and prosperity as it has had in any previous year. I wish you, Mr. Appleton, good health and every success as president of this Association.

Mr. Smith then retired from the chair, which was filled for the remainder of the night by the President elect, who, after being loudly cheered said: I thank you very much, Mr. Smith for your kind wishes, and I thank you all gentlemen here this evening for the cordial way in which you have drank my health as your new President, and I hope

that your good wishes will be thoroughly realized with regard to the next year's presidency of this Association. At this late hour I will not detain you long. Several important questions came up for discussion this afternoon at the annual meeting, and I am glad indeed to find that the London Association is so much nearer to us with regard to uniformity in weights and measures than I had anticipated. We all are now pretty well agreed that a change is needed. We do not say that the central is the system which could be adopted, but that there should be one fixed weight for the buying of wheat, and if this were obtained it would be a great boon to the milling public altogether. You have all heard of the agricultural depression of the country. There is one thing which has frequently struck me with regard to agriculture, and that is the decrease of the growth of corn compared with the increase of population. Test it for 10 years. Ten years ago our population in round numbers was 26 millions, at that time we were growing 16 million quarters of wheat. Since that time our population has been gradually increasing, until now it is about 32 millions, and we are growing only about 10 million quarters of wheat, so that now there are about 20 million quarters of wheat to be provided for; and the agriculturists of the country, instead of trying to grow wheat for the home population, are going back year by year. You may say that we have been suffering from bad seasons, but there are other causes. During these bad seasons the farmers have been getting poorer and poorer, and the land has been getting poorer and poorer. The tenant farmers have been receiving all the assistance they could from the landlords, the landlords have become poorer and poorer, and so, even now, if we had a series of good seasons, it would be some time before the land would be able to grow the crops of ten years ago. That is the present position of agriculture, and it is worthy of consideration. Then, if we require wheat where are we to get it from? Your supplies from the Baltic have nearly ceased; your Russian supplies are getting small; America has had good seasons and has made up the deficiency. But suppose there should be a change, and that America should have a cycle of bad seasons, where then should we look for supplies? We must look to India, to New Zealand, and to Australia. But there is one difficulty in getting wheat from these parts and that is the Suez Canal. We have been told that we ought to have a second canal, and I quite agree with it. What is the state of the Canal now? You know that our Government has one-half interest in the Canal. There are thirty commissioners to look after its affairs, but how many of these are in England's interest? Just three, and these three are not business men. England is contributing 80 per cent. of the income of the Canal, and yet has a representation of three out of thirty commissioners. The dues are very heavy, amounting to a tax on the wheat which comes through of from four shillings to five shillings per ton. The pilotage and other charges are also very great, and all these things combined, I do not think that we shall be in a right position until we have another canal made by English influence and with English capital. Just another word, and that in respect to technical education. You are all aware that England is coming forward very prominently in regard to education. We are spending ten millions sterling, and the Government is finding half of it. The Association and Guilds of London are investing £100,000 in their new building, and as we are now associating our millers with the Guilds of London I hope that the effort will bear good fruit. We are improving our machinery, and our difficulty will be to get competent men to work these machines.

Mr. DAW: I beg to tender to Mr. Smith the heartiest thanks of the Association for his conduct in the chair during the past year.

Mr. SMITH: I am heartily obliged to you all. I feel that in retiring a weight is thrown off my shoulders, and I hope that the honors of office will not be so oppressive to my friend as they have been to me. Once again I say I am much obliged to you all for your great kindness.

Mr. W. C. HEPBURN: (THE MILLER) returned thanks for the milling press, and the meeting adjourned.

THE Northwestern Elevator, in this city collapsed June 7. It contained 115,000 bushels of wheat. The total loss to the owners, Messrs. Manegold Bros. and C. J. Kershaw is estimated to be less than \$10,000. The wheat was insured.

NEWS.

J. B. A. Kern is putting in a 150 barrel roller rye-flour mill, which will be in operation soon.

Casper Smith's flour mill at Oshkosh, Wis., burned June 15th. Loss \$35,000. Insurance \$25,000.

Henckel & Voorhees, of Detroit, Mich., have adopted the Milwaukee Dust Collector in their mill.

The Case Mfg. Co., Columbus, Ohio, have the order of John Brinks Jr. for a line of new machinery.

The Union Mills, of Detroit, Mich., are making improvements by adding a full line of Stevens' rolls.

Hargis & Clark, Wellington, Kas., sixteen pair of the celebrated Allis rolls in Gray's noiseless belt frames.

The Case Mfg. Co., Columbus, O., have the order of R. A. Welsch, Rome, Ga., for one double Case purifier.

Armstrong & Sons, Fayette, Mo., will start up their mill in a short time, on the Case system, of gradual reduction.

J. M. & H. C. Allen, Grafton, Ill., will start their mill up in a short time on the Case system of gradual reduction.

R. K. Allis & Co., Ann Arbor, Mich., will start up their mill in a few days on the Case system of gradual reduction.

The Case Mfg. Co., Columbus, O., have the order of W. T. Price, Hixton, Wis., for one Little Giant break machine.

The Case Mfg. Co., Columbus, O., have the order of G. D. Green & Co., Faribault, Minn., for one double break machine.

Messrs. Edw. P. Allis & Co., Milwaukee, Wis., recently sold David Stott, Detroit, Mich., one Gray's noiseless belt roller mill.

Messrs. Kidder, Bros., Terre Haute, Ind., recently purchased four more pair of Allis rolls in Gray's noiseless belt frames.

R. G. Shuler & Co., of Minneapolis, Minn., have ordered another Stevens' roller mill of the Jno. T. Noye Mfg. Co., Buffalo, N. Y. .

The Link Belt Machinery Co., Chicago, Ill., have ordered a line of breaks and purifiers from the Case Mfg. Co., Columbus, O.

J. T. McKenzie, Louisville, Ky., has instructed the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., to furnish a single Stevens' roller mill.

The Case Mfg. Co., Columbus, O., are furnishing Martin Sellhorn, Boone, Iowa, with four pair Case rolls, with patent automatic feed.

J. S. Simpson, Knoxville, Ill., has placed his order with the Case Mfg. Co., Columbus, O., for two pair rolls, with patent automatic feed.

The Case Mfg. Co., Columbus, O., have the Order of O. K. Griffith, Orrville, O., for two pair smooth rolls, with patent automatic feed.

Jno. B. Isett, of Spruce Creek, Pa., has ordered of the Jno. T. Noye Mfg. Co., Buffalo, N. Y., a Stevens' roller mill for germ crushing.

Mr. M. F. Pease, Lowell, Wis., lately placed his order with Messrs. Edw. P. Allis & Co., Milwaukee, for a Gray's noiseless belt roller mill.

The Case Mfg. Co., Columbus, O., are furnishing Wm. Deubel & Co., Ypsilanti, Mich., two No. 1 double purifiers, for their city mills.

The firm of Durant & Paine, of the City Mills, Milwaukee, has dissolved. C. M. Paine continues the business. Mr. Durant is going West.

John Webster of Detroit, Mich., has contracted for the reconstruction of the Rudd Mill, at Orion, Mich. It will be a 100 barrel roller mill.

Oborn & Baldwin, of Waupaca, Wis., are putting in the Stevens' roller mills, to be furnished by the Jno. T. Noye Mfg. Co., of Buffalo, N. Y.

J. R. Sechler, Sechlersville, Wis., lately purchased four pair of Allis rolls and other machinery, for the change he is now making in his mill.

Emerson, Sherman & Co., Sioux Falls, D. T., have planted an order with the Jno. T. Noye Mfg. Co., Buffalo, N. Y., for a Stevens' roller mill.

G. U. Miner, of Cedar Falls, Ia., is putting in five additional pairs of Stevens' rolls, to be furnished by the Jno. T. Noye Mfg. Co. of Buffalo, N. Y.

J. W. Giff & Co., Peoria, Ills., are putting in another pair of smooth rolls, with patent automatic feed, from the Case Mfg. Co., Columbus, Ohio.

Ballard & Ballard, of Louisville, Ky., have planted an order with the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for three double Stevens' roller mills.

Messrs. Gates & Chatfield, Bay City, Mich., recently purchased a Gray's noiseless belt roller mill, from Messrs. Edw. P. Allis & Co., Milwaukee, Wis.

Messrs. Plummer & Wheeler, Petersburg, Va., lately purchased a Gray's noiseless belt roller mill, from Messrs. Edw. P. Allis & Co., Milwaukee, Wis.

Douglas, Stuart & Forrest's large oat-meal mill at Oregon, Ill., was almost destroyed by fire June 7th. Loss \$40,000 on mill, \$25,000 on stock. Insured.

The Novelty Mill Co., of Parkersburg, W. Va., recently purchased a Gray's noiseless belt roller mill, from Messrs. E. P. Allis & Co., Milwaukee, Wis.

L. V. Rathburg, Esq. of Rochester, N. Y., lately ordered two pair of Gray's noiseless belt roller mills from Messrs. Edw. P. Allis & Co., Milwaukee, Wis.

The Case Mfg. Co., Columbus, O., have furnished C. Carter & Sons, Eaton, Ind., with one 9x18 four roller "Bismarck" mill with patent automatic feed.

B. F. Gump, of Chicago, Ill., the popular agent for Stevens' roller mills in that place, has ordered from the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for Froelich & Sandman, Barrington, Ill., a four break Round's sectional roller mill, with Stevens' corrugations.

The Case Mfg. Co., Columbus, O., have the order of G. A. Hales, Elizabeth, Pa., for one combined break machine and scalper, making three separations.

The Case Mfg. Co., Columbus, O., have shipped I. B. Barrett & Son, Spring Valley, O., their patent automatic feed for five double sets of Odell and Allis rolls.

The Cascade Mfg. Co., of Northfield, Mich., recently put in a Gray's noiseless belt roller mill, purchased from Messrs. Edw. P. Allis & Co., of Milwaukee, Wis.

The Elevator Milling Co., of Springfield, Ill., lately purchased two pair of Wemann's Porcelain rolls in Gray's noiseless belt frames, for one of their customers.

Messrs. Edw. P. Allis & Co., Milwaukee, recently received another order from Messrs. Consigny & Worth, Avoca, Iowa, for a Gray's noiseless belt roller mill.

The Case Mfg. Co., Columbus, O., have the order of Barrett & Son, Spring Valley, O., for four of their patent automatic feeds, to go on rolls of other manufacture.

The Case Mfg. Co., Columbus, O., have the order of L. W. Taylor & Co., Mt. Pleasant, Ia., for one combined break machine and scalper, making three separations.

Mr. E. P. Greeley, Nashua, Iowa, has ordered four pair of Allis rolls in Gray's noiseless belt frames from Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis.

B. F. Gump, of Chicago, Ill., has directed the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., to ship A. Fredinhagen of St. Charles, Ill., a single Stevens' roller mill for cleaning bran.

H. Berkholz, of Rock Rapids, Iowa, is putting in a Round's sectional roller mill, with Stevens' corrugations to be furnished by the Jno. T. Noye Mfg. Co., of Buffalo, N. Y.

The Cockle Separator Mfg. Co., of Milwaukee, Wis., recently placed an order with Messrs. Edw. P. Allis & Co., of the Reliance Works, for a Gray's noiseless belt roller mill.

J. W. Kaufman & Co., of St. Louis, will use three large sized Prinz dust collectors for roller exhaust, and have ordered the same from the Milwaukee Dust Collector Mfg. Co.

Port Clinton, O., is to have a new roller mill to be built by O. J. True & Co. The Jno. T. Noye Mfg. Co., of Buffalo, N. Y., will furnish thirteen Stevens' roller mills for the same.

The Queen City Milling Co., of Buffalo, N. Y., have placed an order for four large sized Prinz dust collectors with the Milwaukee Dust Collector Mfg. Co., of Milwaukee, Wis.

W. T. Reynolds, Bellefonte, Pa., has ordered of the Jno. T. Noye Mfg. Co., Buffalo, N. Y., a Round's sectional roller mill and two detached mills, all with Stevens' corrugations.

The Case Mfg. Co., Columbus, O., have shipped Brandt & Manning, Mt. Joy, Pa., one 9x18 double 4 roller "Bismarck" mill, with patent automatic feed for bran and tailings.

Messrs. Edw. P. Allis & Co., of Milwaukee, Wis., lately filled an order from Messrs. Van Epps & Cox, Fremont, Ohio, for four pair of Allis rolls in Gray's noiseless belt frames.

Philip Dowse, of Elgin, Iowa, has ordered of the Jno. T. Noye Mfg. Co., Buffalo, N. Y., a Round's sectional roller mill and one detached mill, both with Stevens' corrugations.

The Acme Milling Co., Orleans, N. Y., recently placed their order with Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., for a Gray's noiseless belt roller mill.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., lately received an order from Mr. J. B. Isett, of Spruce Creek, Pa., for a Gray's noiseless belt roller mill.

Messrs. Wilderman & Hill, Freeburg, Ill., lately placed their order with Messes. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., for a Gray's noiseless belt roller mill.

Mr. Jno. Schaab, of Papillion, Neb., has purchased two pair of Allis rolls in Gray's noiseless belt frames from Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis.

Sylvester Bros., Boscobel, Grant Co., Wis., have ordered of the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., a Round's sectional roller mill and a detached mill, all with Stevens' corrugations.

Hall & Co., of Westfield, N. Y., have filed an order with the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for a Round's sectional roller mill, and a detached mill, both Stevens' corrugations.

Cyrus Stiles, of Monroe, Mich., has lodged an order with the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for a four break Round's sectional roller mill, with Stevens' corrugations.

Sylvester Bros., Boscobel, Grant Co., Wis., have ordered of the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., a Round's sectional roller mill and a detached mill, all with Stevens' corrugations.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., have an order from Messrs. Roger, Pennypacker & Co., Frankfort, Philadelphia, for seven pair of Allis rolls in Gray's noiseless belt frames.

Robinson & Co., of Maysville, Ky., are about to put in their mill a large sized Prinz dust collector, and have placed their order for same with the Milwaukee Dust Collector Mfg. Co.

E. W. Pride, the gallant Agt. of Nenah, Wis., has landed the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., an order for S. P. K. Sears & Son, of Beaver Dam, Wis., for a single Stevens' roller mill.

Messrs. Knoebel Bros., Belleville, Ill., lately ordered a Gray's noiseless belt roller mill from Edw. P. Allis & Co., Milwaukee, Wis., for Messrs. Land & Swaggard, Brownsville, Mo.

H. D. Rush & Co., of Leavenworth, Kansas, marching on with the rest, have ordered four Prinz dust collectors for their mill, of the Milwaukee Dust Collector Mfg. Co., Milwaukee, Wis.

Mr. C. H. Payne, of the firm of C. H. Payne & Co., Winnebago City, Minn., lately visited Milwaukee, and placed their order with Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., for a No. 2 four break reduction machine, and other machinery, necessary for the change they are making in their mill.

John Webster, of Detroit, Mich., has taken the contract for rebuilding the Perrien Bros. mill at Detroit. It will be a complete roller mill and have a capacity of about 200 barrels per day.

Chas. Heuber, the milling expert of St. Louis, Mo., has lodged an order with the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., five pair of Stevens' rolls, for Geissling & Sons, of Farmington, Mo.

A. S. Davenport, & Co., of Pittston, Pa., have determined to put in a Round's sectional roller mill with Stevens' corrugations. The Jno. T. Noye Mfg. Co., of Buffalo, N. Y., will fill the order.

E. W. Pride, of Neenah, Wis., the valiant agent, has deposited an order with the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for Stevens' (seven) roller mills, for Stewart Bros., Seymour, Wis.

Messrs. Edw. P. Allis & Co., Milwaukee, recently received another order from Messrs. Consigny & Worth, Avoca, Iowa, for a Gray's noiseless belt roller mill.

The Case Mfg. Co., Columbus, O., have furnished C. Carter & Sons, Eaton, Ind., with one 9x18 four roller "Bismarck" mill with patent automatic feed.

B. F. Gump, of Chicago, Ill., the popular agent for Stevens' roller mills in that place, has ordered from the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for Froelich & Sandman, Barrington, Ill., a four break Round's sectional roller mill, with Stevens' corrugations.

The Case Mfg. Co., Columbus, O., have the order of G. A. Hales, Elizabeth, Pa., for one combined break machine and scalper, making three separations.

The Case Mfg. Co., Columbus, O., have shipped I. B. Barrett & Son, Spring Valley, O., their patent automatic feed for five double sets of Odell and Allis rolls.

The Cascade Mfg. Co., of Northfield, Mich., recently put in a Gray's noiseless belt roller mill, purchased from Messrs. Edw. P. Allis & Co., of Milwaukee, Wis.

The Elevator Milling Co., of Springfield, Ill., lately purchased two pair of Wemann's Porcelain rolls in Gray's noiseless belt frames, for one of their customers.

Messrs. Edw. P. Allis & Co., Milwaukee, recently received another order from Messrs. Consigny & Worth, Avoca, Iowa, for a Gray's noiseless belt roller mill.

The Case Mfg. Co., Columbus, O., have the order of Barrett & Son, Spring Valley, O., for four of their patent automatic feeds, to go on rolls of other manufacture.

The Case Mfg. Co., Columbus, O., have the order of L. W. Taylor & Co., Mt. Pleasant, Ia., for one combined break machine and scalper, making three separations.

Messrs. Herr & Cissel, Georgetown, D. C., have purchased a gradual reduction machine for grinding middlings, from Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis.

At Dalton, Wayne Co., O., a new roller mill is being built by the Dalton Roller Mill Co. The Jno. T. Noye Mfg. Co., of Buffalo, N. Y., will furnish twelve pairs of Stevens' rolls for the same.

Chas. Heuber, St. Louis, Mo., has gobbled an order from Deck Bros. Milling Co., Quincy, Ill., for a double Stevens' roller mill to be furnished by the Jno. T. Noye Mfg. Co., of Buffalo, N. Y.

Yenger & Anderson, Portsmouth, Ohio, have ordered of the Jno. T. Noye Mfg. Co., Buffalo, N. Y., a four break Round's sectional roller mill, with one detached mill, both with Stevens' corrugations.

Thos. Wolf, West Farh, New York City, lately sent in an order for a Wegmann's porcelain roller mill in Gray's noiseless belt frames, to Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis.

Norton & Gerkin, Parker, D. T., have passed in their order to the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., for a four break Round's sectional roller mill, with the celebrated Stevens' corrugations.

A Round's sectional roller mill, with the celebrated Stevens' corrugations, will soon be placed in the mill of Guthrie Bros. & Chase, at Milford, Ia., by the Jno. T. Noye Mfg. Co., of Buffalo, N. Y.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., recently received an order from Mr. F. Thomas, Lansing, Mich., for twelve pair of Allis rolls in Gray's noiseless belt frames.

Geo. W. Nicewanner, Piqua, O., after using some of the Case rolls for a short time has placed his order with the Case Mfg. Co., Columbus, O., for a full gradual reduction mill on the Case system.

H. Humboldt, Eagle, Wis., has directed the Jno. T. Noye Mfg. Co., of Buffalo, N. Y., to ship him two Round's sectional roller mills in separate frames and one single mill all with Stevens' corrugations.

Bottkol Bros., of Brussels, Deer Co., Wis., are remodeling their mill, and will employ in so doing two of the recent pattern Stevens' roller mills, as made by the Jno. T. Noye Mfg. Co., of Buffalo, N. Y.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., recently received an order from Mr. F. Thomas, Lansing, Mich., for two pair of Allis rolls in Gray's noise

Odell rolls are to be placed in the mill of Staley & Ziegler, Carnie, Ills.

Odell rolls are to be placed in the mill of E. C. Huntington, Elmyra, N. Y.

Isaac Radcliffe, Amo, Hendricks county, Indiana, has purchased two pair of Odell rolls.

G. C. Miller, Eldersville, Pa., has purchased Odell rolls from the Stilwell & Bierce Mfg. Co.

Four pair of the Odell rolls are to be placed in the mill of W. H. J. Moore, Turner Junction, Ills.

The Stilwell & Bierce Mfg. Co. have just shipped Odell rolls to Wm. Lindsay, Humboldt, Kansas.

John Frost, Mantua, Ohio, has ordered four pairs of the Odell rolls of the Stilwell & Bierce Mfg. Co.

The Stilwell & Bierce Mfg. Co. have orders for the Odell rolls, from The Slater Mill Co., Lancaster, Ohio.

The Stilwell & Bierce Mfg. Co. have just shipped a line of rolls to their agent, Mr. Gardner, Gloucester, Eng.

Hollibaugh & Werner, Hartville, Ohio, have purchased an Odell bran roll from the Stilwell & Bierce Mfg. Co.

The Stilwell & Bierce Mfg. Co. have orders from C. Burkhardt & Co., Chambersburg, Pa., for a 9x24 roller mill.

The Stilwell & Bierce Mfg. Co. have orders for three pair of Odell rolls, from L. I. Blashfield, Jackson, Michigan.

The Stilwell & Bierce Mfg. Co., have orders for six pair of Odell rolls, for the mill of Raban & Mass, St. Wendel, Indiana.

Two pairs of 9x24 Odell rolls have been purchased from the Stilwell & Bierce Mfg. Co., by A. & H. Wilcox, Jackson, Michigan.

The Stilwell & Bierce Mfg. Co. have orders recently from J. W. Langdon, Evansville, Indiana, for twelve pair of Odell rolls.

The Stilwell & Bierce Mfg. Co. have an order from Moehle Bros., Arrow Rock, Missouri, for one new Odell eight-roll roller mill.

One double Odell roller mill has been ordered from the Stilwell & Bierce Mfg. Co., to be shipped to F. M. Mooney, Steubenville, Ohio.

One new Odell eight-break mill, and other machinery have been ordered from the Stilwell & Bierce Mfg. Co., for The Miller Co., Canton, Ohio.

Five pair of Odell rolls, purchased of the Stilwell & Bierce Mfg. Co., are to be placed in the mill of Joest & Wintenheimer, Wadesville, Indiana.

The Stilwell & Bierce Mfg. Co., have orders from their agent in Gloucester, England, for Odell rolls, to be placed in the mill of George Shaw & Co., Cork, Ireland.

The mill of Samuel G. W. Stokes, Alexandria, Nebraska, is to be run by a Victor turbine water wheel, to be furnished by the Stilwell & Bierce Mfg. Co., Dayton, Ohio.

The Stilwell & Bierce Mfg. Co. are furnishing six pair of Odell rolls for the mill of Monroe Peas, Columbus Grove, Ohio. The mill is to be built on the Odell system.

The Stilwell & Bierce Mfg. Co. have a contract to remodel the mill of W. I. Ballenger & Son, Plain City, Ohio, furnishing six pair of the Odell rolls and a line of machinery.

The Stilwell & Bierce Mfg. Co., have orders for rolls from the Moravia Foundry & Machine Co., Moravia, N. Y., also from the Richmond City Mill Works, Richmond, Indiana.

The Stilwell & Bierce Mfg. Co. have just shipped one of their Victor turbine water wheels to the Santos Mining Co., Mexico; also to Jas. Wagner & Co., San Francisco, California.

The Stilwell & Bierce Mfg. Co. have a contract with J. D. Bowersock, Lawrence, Kansas, for fifteen pair of the Odell rolls, and a line of machinery. The daily capacity will be 500 barrels.

The Stilwell & Bierce Mfg. Co. have orders for six pair of Odell rolls from the Link Belt Mfg. Co., Chicago; also have recent orders from the Simpson & Gault Mfg. Co., Cincinnati, Ohio, for Odell rolls.

The Stilwell & Bierce Mfg. Co., have a contract to remodel the mill of F. D. Hartzel & Son, Chalfont, Pa., ten pairs of Odell rolls are to be used, and a full line of machinery to produce 100 barrels per day.

The Stilwell & Bierce Mfg. Co. have a contract with S. B. Greely, Fosters Crossing, Ohio, for ten pairs of the famous Odell rolls, and also furnish a full line of machinery, and remodel the mill to the Odell system.

The Stilwell & Bierce Mfg. Co. have orders from Charles Tiederman, O'Fallon, Illinois, for ten set of the celebrated Odell roller mill with independent simultaneous belt tighteners, and all the valuable Odell adjustments.

The contract for remodeling the mill of Wm. Selover & Co., Moravia, N. Y., has been awarded to the Stilwell & Bierce Mfg. Co., Dayton, Ohio, ten pair of Odell rolls will be used and a complete mill arranged on the Odell system.

The Stilwell & Bierce Mfg. Co., have a contract to erect a large flouring mill on the Odell system, for Martin & Ruhl, Summerville, Oregon. A full line of Odell rolls are to be used. This is the first roller mill to be built in Oregon.

The Stilwell & Bierce Mfg. Co. are to furnish the plans and machinery for the new mill of S. Y. Billingsley, and A. E. Burkhardt, DeGraff, Ohio, twelve pair of Odell rolls will be used. The capacity of the mill will be 100 barrels per day.

The Stilwell & Bierce Mfg. Co. have orders from Henry Schnur, Mt. Vernon, Indiana, for five pair of Odell rolls. Orders have been placed for Odell rolls from the Stilwell & Bierce Mfg. Co. for the mill of J. U. Wilder, Huntingdon, Tenn.

The Stilwell & Bierce Mfg. Co., furnish a complete line of Odell rolls for the mill of J. M. Hains, New Albany, Ind., which is to be a capacity, when finished, of 250 barrels per day. The programme for the mill is furnished by Mr. Odell.

The Stilwell & Bierce Mfg. Co. furnish Odell roller mills for the new mill at Wellington, Ohio, of which six pairs are to be used in connection with a six-break concentrated Odell roller mill. The capacity of the mill will be 150 barrels.

The Stilwell & Bierce Mfg. Co. have orders for a six-break concentrated Odell roller mill in six pairs of Odell rolls. The same are to be placed in the mill of A. F. Dexter, Clay Center, Kansas. The programme for this mill is to be furnished by Mr. U. H. Odell.

White & Feather, Clarks, Pa., have decided to change their mill to the roller system, and after investigating the different systems they placed their order with the Case Mfg. Co., Columbus, O., for a combined outfit of breaks, rolls, purifiers, scalpers, etc., for a full gradual reduction mill on the Case system.

One six-break Odell concentrated roller mill complete, also six pair of Odell rolls have been ordered from the

Stilwell & Bierce Mfg. Co., for the mill of Amos Phelps, Delavan, Wis. They also furnish the programme for the mill on the Odell system, and a full line of machinery to produce 100 barrels per day.

The Stilwell & Bierce Mfg. Co., are furnishing the machinery and the programme for the mill of George Husler, Salt Lake City, Utah. A four-break concentrated Odell roller mill will be used, and also double Odell rolls.

The Stilwell & Bierce Mfg. Co. have orders for the Odell rolls for the mill of Jacob Venier, Archville, Ohio.

Messrs. Willford & Northway, of Minneapolis, report a good demand for Allis rolls throughout their territory. They recently sent in an order for two pair in Gray's noiseless belt frames, for Messrs. A. S. Lasser & Co., Maconia, Mich., also an order for two pair in Gray's noiseless belt frames, for the Gray Mfg. Co., Minneapolis, Minn.

The new mill now building by Messrs. J. K. Mullen & Co., Denver, Col., will be driven by a 25x48 Reynold's Corliss engine, condensing, from the Reliance Works of Messrs. Edw. P. Allis & Co., of Milwaukee, Wis. Messrs. Allis & Co. also have contract for all of the roller mills, special machinery, and iron work for this mill.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., are furnishing the roller mills, centrifugal reels, Gray purifiers, etc., for the addition to the Camp Spring Mill Co.'s mills at St. Louis, Mo., and are putting in thirty pair of rolls in Gray's noiseless belt frames, making fifty-six pair in all in their complete mill.

Mr. Fred. Fishinger, Columbus, Ohio, has contracted with Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., for one of their new four break machines, a Gray's noiseless belt roller mill, and other machinery for his mill. This makes another of the four break reduction machines bound soon to achieve the success of the others that have preceded it.

The following orders were received by Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., from Richards & Butler, the well known mill furnishers of Indianapolis, Ind.; Harrison & Klessner, Zionsville, Ind., one Gray's noiseless belt roller mill; W. P. Hambraugh & Co., Ringole, Tenn., one Gray's noiseless belt roller mill; Gem Milling Co., Rushville, Ind., ten pair of rolls in Gray's noiseless belt frames.

Work on the Halliday Mill at Cairo is progressing rapidly under the superintendence of Mr. J. N. Patrick. Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., are furnishing forty pair of rolls in Gray's noiseless belt frames, together with other special machinery, and are doing all of the iron work. Messrs. Halliday Bros. do nothing by halves and the mill when completed will be first-class in every respect.

Among the orders recently received by Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., are the following from the Richmond City Mill Works, Richmond, Ind.; Y. M. Rigor, Franklyn, Tenn., one Gray's noiseless belt roller mill; Merritt Bros., Louisville, Kas., one Gray's noiseless belt roller mill; Galva Mill Co., Galva, Kas., one Gray's noiseless belt roller mill; Metzger & Fischer, Stella, Neb., one Gray's noiseless belt roller mill; G. H. Hunter, Wellington, Kas., one Gray's noiseless belt roller mill; Henry Segler, Valley Falls, Kas., two pair Allis rolls Gray's noiseless belt frames; Messrs. West, Allison & Co., Hutchinson, Kas., two pair Allis rolls in Gray's noiseless belt frames.

Messrs. Willford & Northway, Minneapolis, again come to the front with a batch of orders for Messrs. Edw. P. Allis & Co.'s Reliance Works, Milwaukee, Wis., among which are the following: Edwin Clark, Melrose, Minn., one Gray's noiseless belt roller mill; N. W. Roller Mill Co., Baraboo, Wis., one Grays noiseless belt roller mill; one No. 2 four break reduction machine for a mill they are remodeling in Minn; Chas. Stewart, Stewartsville, Minn., eight pair rolls in Gray's noiseless belt frames; Andrew Friend, Garden City, Minn., eight pair rolls in Gray's noiseless belt frames; Messrs. Sorrenson & Bridgeman, Fremont, Neb., twelve pair rolls in Gray's noiseless belt frames, together with other machinery necessary for their change.

THE Managers of the Smithsonian Institution have undertaken to present in all the leading branches of mechanical and manufacturing industry, examples on the one hand of the old, crude, and primitive appliances which exist as relics of a past age, and on the other the most approved specimens of American machines or devices which those arts in their modern state afford. In that branch of industrial science which comprises the utilization of the power of water, the managers of the institution have selected the James Leffel Double Turbine as a representative modern American water-wheel, embodying the most improved and efficient means for the development of water-power as applied to the propulsion of all kinds of machinery. To this end they requested the firm of James Leffel & Co. to furnish them with a specimen of the Leffel wheel, to be placed in the new National Museum building lately completed, adjoining the original structure of the Institution, where it will form a part of the collection of the best modern machinery which is now forming on the plan above described. The wheel asked for by the Smithsonian Institution has been made at the shops of James Leffel & Co., in Springfield, Ohio, and is now at their office at 110 Liberty st., New York. It is not a "model" merely, but a working wheel of 7½ inches diameter, one of the regular sizes made by the firm. It differs in no respect from those of their ordinary make, save in its ornamental finish, upon which special care has naturally been bestowed. The gates and gate-rods are plated with gold, and the other parts of the casing with silver.

The Stilwell & Bierce Mfg. Co. have orders from Henry Schnur, Mt. Vernon, Indiana, for five pair of Odell rolls.

Orders have been placed for Odell rolls from the Stilwell & Bierce Mfg. Co. for the mill of J. U. Wilder, Huntingdon, Tenn.

The Stilwell & Bierce Mfg. Co., furnish a complete line of Odell rolls for the mill of J. M. Hains, New Albany, Ind., which is to be a capacity, when finished, of 250 barrels per day. The programme for the mill is furnished by Mr. Odell.

The Stilwell & Bierce Mfg. Co. furnish Odell roller mills for the new mill at Wellington, Ohio, of which six pairs are to be used in connection with a six-break concentrated Odell roller mill. The capacity of the mill will be 150 barrels.

The Stilwell & Bierce Mfg. Co. have orders for a six-break concentrated Odell roller mill in six pairs of Odell rolls. The same are to be placed in the mill of A. F. Dexter, Clay Center, Kansas. The programme for this mill is to be furnished by Mr. U. H. Odell.

Andrew Hunter, well-known middlings purifier man of Chicago, recently filed a claim with Secretary Seamans, of the Millers' National Association, for the sum of \$100,000, for the use of members of the Association of his patent, No. 137,207, the third claim of which reads as follows: *Third. The combination with the bolt or screw B, of the inclined*

suspending links C and the mechanism for vibrating the bolt, substantially described, whereby a rising and falling as well as a reciprocating or vibratory movement is imparted to said bolt, as described. Mr. Hunter claims that no successful purifier can be made without infringing his patent.

It appears, upon examination, that Hunter's patent was clearly anticipated by W. C. Brown's application for patent, and others. W. C. Brown was a miller in Minneapolis, and filed his claim in 1871. He procured a limited claim on construction, and half of this patent was assigned to Geo. T. Smith, previously to the payment of the final fee, and the application was renewed, putting in five claims, three of which were based upon the slotted links and their supporting devices. One of the claims being quite a broad one for the combination of the shaker (A) and the pendulum links (B), supported at their upper ends in slots (C), whereby the inclination of the links and the consequent toss of the shaker could be varied. The examiner found no reference to anticipate this claim, and it was put into interference with Jauney, Hardenburgh, Hardenburgh & Fender and La-Croix.

Before the interference had proceeded far, however, the examiner found two patents, No. 20,976, to L. Ellig, May, 1871, and another, No. 114,463, to W. A. Myres, May, 1871, both of which show adjustable inclined pendulum links. As these references were perfect anticipations of Brown's invention, the broad claim above referred to, was struck out of his application, but by carrying the matter before the Board of Appeals the claim was allowed for combination of a shaker supported upon inclined pendulum links, which had their upper ends adjustable of an adjustable feeder. The claim was put in interference with a number of existing patents and pending applications when the examiner found a drawing and description in a German publication of 1868, of the "Mittheilungen des Gewerbe-Vereine fur Hanover." This machine fully anticipates the claim allowed to Brown by the Board of Appeals, and also disposes of Mr. Hunter's claims, as the toss of the shaker can be varied at will by changing the inclination of the wooden springs, which are the equivalents of Hunter's inclined adjustable links.

THE ROSE POLYTECHNIC INSTITUTE.
Chauncy Rose, a rich bachelor of Terre Haute, Ind., who died a few years ago, provided in his will for a grand school of technology in that city. A splendid edifice and complete workshops were built some time ago, and on March 7 the school was formally opened with a class of twenty-five students selected by competitive examination from forty-five applicants. Charles O. Thompson, eminent in his profession, from Worcester, Mass., is president. The press report of the State remarks: "This event is one of the most important in the history of education in this State, the institution being the first of the kind established in the West. The institution, in addition to the buildings and property, has, according to the *Minnesota Trade Journal*, an endowment fund of near \$500,000, left to it by its founder at the time of his death in 1878."

A fair notion of a few of the leading ideas of this new Western enterprise may be obtained from the following extracts from President Thompson's opening address:

"The Almighty makes superintendents and leaders of men—no school can. But the training required for a superintendent must be that of his subordinates. All the best experience of the world sanctions this rule. A superintendent who has not had the training of the shop is as useless as Achilles without his weapons; he may seem and assume to direct and to lead, but he does not. On the other hand, the man who attempts to lead without natural leadership is as useless as the weapons without Achilles."

THE ATMOSPHERE OF A FLOURING MILL.
The proprietors of the Pillsbury "A" mills, at Minneapolis, requested Prof. James A. Doge, of Minnesota State University, to subject the atmosphere of that mill to a scientific test, which was accordingly done. The following is an extract from the Professor's report:

"The detection of slight traces of inflammable gases intermixed with air would be very difficult or impossible, if it were required that such inflammable admixture should be sought for by direct test. Chemists have as yet no agent for proving the presence of such gases except in a few cases; but I had in mind at the time of the request, methods of reaching a conclusion indirectly by determining if the air in question were of a normal character,

in so far as chemical tests could be readily applied to it. These methods I have carried out. On the evening of December 22, I visited the mill and procured samples of the air from the upper stories near the centre, and again on the evening of December 29, procured samples from the second floor, near the packers. These samples I find do not differ from the air of an ordinary, well ventilated building. A determination of the amount of carbonic acid gas in air serves as a standard test of the purity of the air and of the thoroughness of the ventilation. In the air taken from the upper story I found 3.8-10 parts of carbonic acid gas in 10,000 parts of air. The air out of doors regularly contains between 3 and 4 parts in 10,000. In the house it is often 5 or more. The air of the mill is nearly as pure in this respect as the air out of doors. This proves the satisfactory character of the ventilation. Further, the quantity of fine dust of flour, etc., in the samples of air which I procured representing the matter of that kind suspended in the air at that moment, was extremely minute, so that it proved to be impossible to make a determination of the amount. Whether some traces of inflammable gases may or may not be present in the air of the mill, it is, as I have stated, impossible to learn by direct test; but all chemists would, I think, agree that there is no cause or action in the regular working of the process carried on in the mill, by which any inflammable gases should be generated. Some of the mill dust is so fine that it may behave like an inflammable gas; but inflammable gases themselves are, without doubt, absent."

The GRAND HAVEN ROUTE

Is the Shortest, Quickest and Cheapest to the East.

DETROIT, GRAND HAVEN & MILWAUKEE RAILWAY LINE.

\$2.75 SAVED.

Two Through Connections Daily.

Steamer CITY OF MILWAUKEE, side wheel, leaves her dock at 2:30 P. M. daily, (Sundays included,) and makes the run to Grand Haven in five hours, connecting with 9 P. M. through train for NEW YORK, BOSTON, and all EASTERN POINTS. This is strictly a Passenger Steamer and carries no Freight.

The night Steamers MICHIGAN and WISCONSIN leave same dock at 8:00 P. M. daily, except Saturdays, and connect with Steamboat Express at Grand Haven which makes the run across MICHIGAN and CANADA 450 miles by DAYLIGHT, and reaches NEW YORK the 2nd day at 10:30 A. M.

N. B.—This entire fleet of PALACE IRON STEAMERS is now owned and controlled by the Railway Company. Ticket Office, No. 99 Wisconsin Street, and at dock foot of West Water Street, Milwaukee.

T. TANDY, B. C. MEDDAUGH,
Gen'l Freight & Pass. Agt., Western Pass. Agt.
DETROIT, MICH. MILWAUKEE, WIS.</p

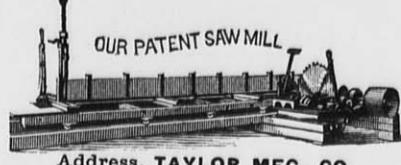
IMPORTANT NOTICE.

Milwaukee, Wis., May 1st, 1883.
To Whom it May Concern:
For the more complete protection of our patrons, and to secure them beyond question against loss or annoyance from suits for infringement with which they have been threatened, we have, at a great cost to ourselves, secured a LICENSE from the GEO. T. SMITH MIDDINGS PURIFIER CO. of Jackson, Michigan, KIRK & FENDER, of Minneapolis, Minn., and SAM'L L. BEAN, of Washington, D. C., licensing the "PRINZ"

Dust Collector under all Dust Collector patents owned by the parties above named. The patents now controlled by our company on this class of machines cover broadly the whole process of collecting dust in flour mills, and all the most modern devices by which the process is carried out.

The license, which we shall furnish to all parties having Dust Collectors made by us, carries with it ABSOLUTE security and PROTECTION in the use of our machines.

Yours very truly,
MILWAUKEE DUST COLLECTOR MFG. CO.
JULIUS SCHLESINGER, Manager.



Address, TAYLOR MFG. CO.
(Please Mention this Paper.)

FOR SALE.

A Flouring and Grist Mill; good water power, fine location, about 400 feet from Rail Road Station. Would take other real estate for part payment. For particulars inquire of O. E. MEYER, 183 West Water Street, Milwaukee, Wis.

ROLLER FLOUR MILL WANTED—To rent preferred, or buy. Capacity about 100 barrels daily; water power; must be unfailing. Address: Box 544 Lindsay, Ontario, Canada.

The Livingston Belted Roller Mill

WITH EITHER OUR
PAT. NON-CUTTING OR SHARP CORRUGATIONS.
THIS MILL

is the Outgrowth of over 4 Years' Experience with Roller Mills; is Neat, Strong and Durable; has no Delicate Parts to get out of order; has More and Better Adjustments than Any Other Roller Mill in Market.

We have Secured a Patent for Non-Cutting Corrugations which make a Large Percentage of Middlings and Broad Bran.

MILLS GUARANTEED TO GIVE THE BEST OF SATISFACTION.

FOR CIRCULARS AND PARTICULARS ADDRESS

STOUT, MILLS & TEMPLE, MANUFACTURERS, DAYTON, OHIO.

PRAY MFG. CO., Minneapolis, Minn.

[Mention the UNITED STATES MILLER when you write to us.]

SOLE AGENTS for Minnesota, Dakota and North Wisconsin.

THE LIABILITY OF DUST EXPLOSIONS IN MILLS IS DONE AWAY WITH BY USING THE PRINZ PATENT IMPROVED DUST COLLECTOR.

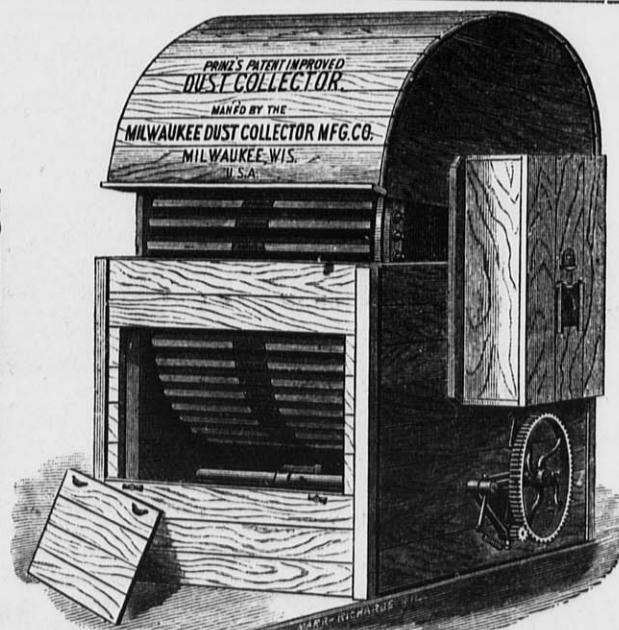
It is an Established Success. The Back Draft Cleaning Mechanism, the only perfect device for keeping the cloth clean, EXCLUSIVELY USED under the PRINZ PATENTS.

BEWARE OF INFRINGEMENTS.

Prinz Patents.

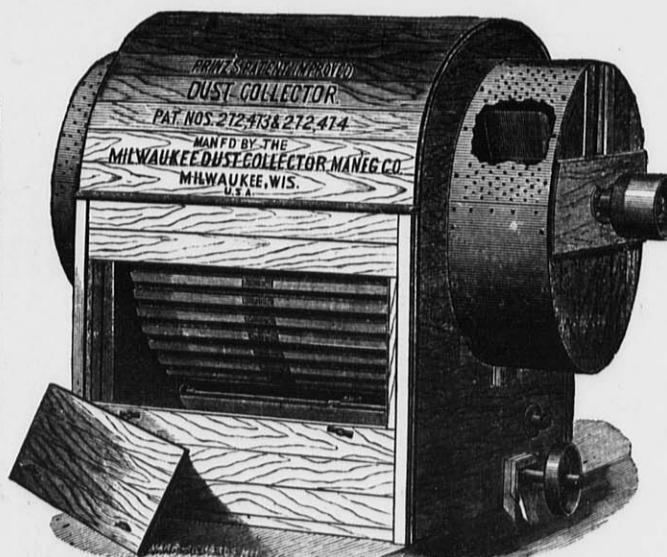
Nos.
272,473
272,474

THE SIMPLIST.



Prinz Pat. Improved Dust Catcher.

THE MOST RELIABLE.



THE BEST.

CONSOLIDATED
Licensees Patents,

Nos.
63,325
125,518
149,434
171,973
207,585
211,033
228,023
231,376
235,197
239,755
248,984
250,813
251,120
251,121
258,875
258,876
258,878
259,872
259,873

Machines in steady operation for over two years. Selling at the rate of 200 a month. **FULLY GUARANTEED.** Manufactured exclusively under the PRINZ PATENTS. Also licensed under all patents now or hereafter owned and controlled by the combined licensees Geo. T. Smith Middlings Purifier Co. of Jackson, Mich.; Kirk & Fender, Minneapolis, Minn., and Samuel L. Bean of Washington, D. C.

SEE + SPECIAL + NOTICE. +

License under all patents furnished purchasers. Send for circulars and other references. All correspondence promptly answered. You will save time, money and labor by using this machine. **EVERY MILLER SHOULD HAVE IT.** Remember it is the **BEST**. Note testimonials, samples of hundreds received.

TESTIMONIALS.

Milwaukee Dust Collector Mfg. Co.
MINNEAPOLIS, MINN., April 2, 1883.
GENTLEMEN—In reply to your request for our opinion of the merits of your Dust Collector, will say, we are using them on twenty purifiers and they ventilate perfectly and require no attention. We consider it the best Dust Collector in the market.
Yours truly,
J. A. CHRISTIAN & CO.

Milwaukee Dust Collector Mfg. Co.
MINNEAPOLIS, MINN., April 2, 1883.
GENTLEMEN—After a two months' trial of your Dust Collector, we feel prepared to bear testimony to the value of your machine, and will say, without exception, it is one of the most satisfactory devices we have ever placed in our mill as a purifier and roller exhaust. Yours truly,
CROCKER, FISK & CO.

Milwaukee Dust Collector Mfg. Co.
MINNEAPOLIS, MINN., April 2, 1883.
GENTLEMEN—Yours of 30th ult., at hand. We say in reply, that we have six of your Prinz Dust Collectors in our mill, and they are giving best of satisfaction, doing all that you claim for them. We consider them the best Dust Collector in the market.
Yours truly,
D. K. BARBER & SON.

Rochester, N. Y., April 17, 1883.
Milwaukee Dust Collector Mfg. Co.
GENTLEMEN—In reply to yours of the 14th ult., would say that the Prinz Dust Collector in use in our A and B mills are giving excellent satisfaction, need very little attention, and do their work remarkably well.
Yours very truly,
MOSELEY & MOTLEY.

Milwaukee Dust Collector Mfg. Co.
ST. LOUIS, Mo., March 7, 1883.
GENTLEMEN—Yours of date, Feb 24, received, making inquiry as to how your Dust Collectors are working, would say they are giving us entire satisfaction. We are running twenty of them. * * * They give us no trouble.
Yours truly,
KEHLOR MILLING CO.

Milwaukee Dust Collector Mfg. Co.
JAMESTOWN, N. Y., April 27, 1883.
GENTLEMEN—I have the Dust Collector that you shipped to D. H. Grandin, of this city, at work, and will tell you in this just what I think of it. I consider it the most perfect working machine that I ever saw; it has dispensed with the dirty dust room entirely. It takes the dust from four purifiers completely, and from nine sets of single roller mills to a perfection. I cannot say enough in its praise, and feel sure that it has a future unequalled by any mill improvement of the age. I remain very respectfully yours,
J. P. HETTIPLACE.

MILWAUKEE DUST COLLECTOR MFG CO., Milwaukee, Wis., U. S. A.